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## Title word cross-reference

#5375 [Ort85].

$(\mathbf{A} - \lambda \mathbf{B})\mathbf{X} = \mathbf{0}$  [Boo67a]. 0  
[BP68, Per66b, Pro69, Tur66]. 1  
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[Tra60a]. **Aesop** [Kai67]. **affairs**

[Ano62g, Car69]. **affecting** [Lei63]. **AFIPS**

[Ano62g, Gal69j]. **after** [LK68a, LK68b].

**age** [Gal68a]. **ahead** [Ram66]. **aid**

[FvdGT62, RSWM66, Ros65a]. **aided**

[Ros61a, WM65]. **aides** [YK66]. **aims**

[Dij64, Gor66g]. **Airline** [Dav62]. **Airy**

[BP67, Pit67]. **Aitken** [Mif61, Rel62e].

**ALCOR** [BGPW67, GPW65, ST64].

**Algebra** [GIB65, Ver65, BCD<sup>+</sup>62, Mau66, WB64, Bos63c, Mif63c]. **Algebraic** [Gal60b, LG65, CH61, Hea66c, Rom61a, Sti62].

**algebraically** [SH66]. **ALGOL**

[Gor64e, WH66b, WW66a, Abr66, Ano63a, Ano69a, AGG61b, Bac61, Bot61, Bou66, Bro63c, Bur65a, Che64, Chu65, Con61, DN66, Dij61, EPV61, Flo60b, Flo62f, FvdGT62, GP66, GP67, Gar64b, Gor64d, Gra61a, Haa65, Hea64, Her69a, HHM60, HW61b, IF61, Iro61, Ive65, JMN61, KKR65, Kau63b, KM61, KBH<sup>+</sup>64, Knu67, Kur66, Lan65a, Lan65b, Lie64, McI60b, McK65d, NBB<sup>+</sup>60, Nau63k, NBB<sup>+</sup>63, Nau65, Par66c, Par66e, PI64, PV64, Ros64a, Ros63a, ST64, Sat61a, Sau69, Sch62d, SB63, Smi60a, SW61, TTW61, Tha62g, TDTW61, Utm63, Vei66b, Vos64, WY62, Wei65a, Wei61a, Wel63b, Wir63, WH66a, WW66b, WW66c, Woo69,



Woo63, Zar65, von67, BS61a, FR69, Sin68a, Sin68b, Sin69a, Sin69e]. **Algol-60** [BS61a].

**ALGOL-based** [DN66, FR69].

**ALGOL-like** [Chu65, Par66e, Ros64a].

#### **Algorithm**

[Cla60c, Col78, CH88, Er85, Flo60b, GF64a, Gau64a, GR70, HP85, HOK73, Hub66, Ito76, Jan77, Knu66c, KD71, Mei65, Men62, Mis75, Nov85, Obr73, Pat69a, Per69, Pet70, PS76, Pom65, Rey61c, Ros69a, SS68, Sin69b, Sko75a, Sko78, Sta65a, Ten77, Tra82, WF66, eL76, AGG61c, Ber68a, Bus67a, CC67, CF69b, Cod60b, DF60, FvF68, Flo61, Foa61, FL68, Gal64a, GM69, GF64b, GR67, HW65, Hen66b, Hom66, HT68, How68a, HB66, Iro63, KF67, KA69, Lan67, Lon62, MW66, Mes69, Mil68, Nau63c, OS67b, Par66a, Ree66, Rod68, Roe66, RBS66, Sil60b, Sim69, Sla64, Tho66, Tho68, Tob66a, Abr65, Ada69, Air66, Ale61a, Ale61c, Ale61b, All65, Ami62, Art63, Bac69a, BF61, Bar63a, BG68a, BG69a, BW64, Bau61, BS62, Bau63, Bay65a, Bay65b, Bay66a, Bay66b]. **Algorithm** [Bay68a, Bay68b, Bay73, Bea60, Beh62a, Beh62b, Beh62c, Beh62e, Beh62d, Beh63, BP66, Bel68, Ber66, Ber68b, Bit63, Bla64a, Bla64b, Bla66a, Bla63a, Bla66b, Bla66c, Ble66a, Ble66b, BP67, Boo65b, Boo63a, Boo63b, Boo64c, Boo64b, Boo64a, Boo65c, Boo66a, Boo66b, Boo67c, Boo67a, Boo67b, Boo67d, Boo67e, Boo69, BS60, BB74, Bos63c, Bos63a, Bos63b, Bow65a, Bow65b, BM67c, Bra67, BM67b, Bra64a, Bra64b, BW68b, BW68c, Bra69, Bre61, Bri63a, Bri63b, Bri65, Bro61a, Bro61b, Bro62b, Bro62a, Bro67b, Bro62c, Buc62, Bul74, Bus65a, Bus65b, BG69d, BP68, Caf61b, Caf61a, Caf62, Cav64, Cha67d, Cha67c, Cha67e, CF69a, Cla69b, Cla69a, CKP63, Cla63, Cla60a, Cla60b, CH64, Cla60c, Cle69, Cli69, Cob69, Coh61a, Coh62, Col63a, Col63b, Col64a, Col64b, Col61a].

**Algorithm** [Col61b, Col63c, Col62a, Col62b, Col62c, Col62d, Col62e, Col62f, Col62h, Col62g, Col62i, Col62j, Col62k, Con62,

Cou62a, Cou62b, CS61, CT62, Cun62a, Cun62b, Cun62c, Cyv64b, CC64, Cyv64a, DW62a, DW62b, Dav76, De 73, De 68a, De 68b, Dei66b, Dei66a, Dia69, Die62, Dig63, Dom63, DRG63, Dor64, Dor68, Dub61, Duk69, DP67, Dur64, Dwy63, Eav62, ES62, Ell60a, Ell65, Ell74a, Ell74b, Erw62, Eva62, Eva63, Fai69, Far66, Far69, Fen68, Fer65, Fet62, Fet63b, Fet63a, Fet63c, Fet63d, Feu60, Fie69, FS67a, FV63, Fle63, FS66, Fle66, Flo62a, Flo60a, Flo62c, Flo62d, Flo62b, Flo64a, For63b, For60a, For60b, FH60, FH64, Fre63a, Fre63b, Fre61, Fri67, Gai74, Gal67, Gal60c, Gal60d, Gal60e, Gal60f, GK62, Gau64b, Gau64c, Gau64d, Gau65a, Gau65b].

#### **Algorithm**

[Gau66a, Gau66b, Gau68, Gau69a, Gau69b, GK70, Geo62a, Geo62c, Geo62b, Geo62e, Geo62d, Geo62f, Geo63a, Geo63b, Geo63d, Geo63c, Geo63e, Gia62, Gia61, Gib61, Gib63, Gil61, Gor60, GB68, Gra60, Gra65, Gra63a, Gra63b, Gra64, Gra69, Gre68a, Gre62c, GR70, Gun65b, Gun65c, Gun65a, Gun67, Hac62, HL62, Háj63, Hal63a, HR69, Hal62, Hal64, HB69, Han66b, HR64, Hau63a, Hel62a, HO61a, HKV68, Hen62a, Hen62b, Hen63d, Hen63b, Hen63c, Hen63a, Hen60a, Her61i, Her61f, Her61o, Her61m, Her61n, Her61e, Her61l, Her61h, Her61g, Her61k, Her61p, Her61a, Her61j, Her61b, Her61c, Her61d, Her61q, Her60b, Her69b, HP66, HP67, HJ67a, HJ67b, Hil69, Hil62d, Hil62e, Hil62c, Hil62b, Hil62a, Hil66, Hil67a, Hoa61c, Hoa61a, Hoa61b, Hoa68, HOK73, Hol62, HL66b, HL66c, Hop63a, Hop63b].

#### **Algorithm**

[How62a, How69, Hun68, Ibb63a, Ibb63b, Ing61b, Ing62a, Ing62b, Iso63, Jef61, Jef62, JS62b, JS62a, JS62c, Jue63b, Jue64, KF63a, KF63c, KF63b, Kas63, Kau62a, Kau62b, Kau63a, Ken60b, Ker66, Kiv62a, Kiv62b, KK74, Kli69, Kna61, Kno69, Koh67, Köl68a, Köl68b, Köl69a, Köl69b, Köl69c, Köl72, KD71, Kon63a, Kon63c, Kop74, KW62a,



KW62b, KW62d, KW62c, KW62e, KW62f, KW62g, Kub65, Kun62, Kur62, Lan65c, Lap63, Lar66b, Lau63, Law63, Lea60b, Lea60a, Lea61, Lef63, Lei69, Lev69, Lew75, Lip61a, Lip61b, Llo66, Lon70, LG64, Lud63, Luk63, Mac65, Mac68, Mac69, Mac61b, MM73, Mac60a, Mac60b, MC73, Mak67a, Mak67c, Mak67b, May62a, May62b, May61b, May62c, May62d, May62e, McC64b, McI69b, McK65c, McK65a, McK67a, McK68c, McK68b, McK62b, McK62a]. **Algorithm** [McK62c, McK62d, McK63a, MT63, McK63b, McK64a, MTB64, McK64b, McK65d, Mck65b, Med65, Mer62, Mes69, Mey63, Mif61, Mif63c, Mif63a, Mif63b, Mif63d, Mil64c, Mor64, Mor68a, Mor69a, Mut68, Nau60a, Nau60b, Nau63a, Nau63b, Nau63f, Nau63g, Nau63h, Nau63i, Nau63j, Nau64b, Nau64a, Nau64c, Nes61, New62, New63c, New65, Nie72, Nol68, Nol69, Non68, OW68a, Obr73, Oli68, Oly64, Opp64, OS67a, OS67c, OS68, Ose60, Pac70, Pan68b, Par69b, Pea60, Pea61, Pec62b, Pec62c, PS62a, Pec62a, PS62b, Pec64, PW66, Per63a, Per64a, Per64b, Per69, Per62a, Per62b, Pet70, Pfa62, PS65, Phi62, Pik64, PH65, Pik65a, Pik65b, Pik65c, Pik65d, Pik65e, PH66a, PH66b, PH67, Pit67, Poo63, Pri64b, Pro69, Rad61, RT61, Rad71, RB62, Ran62a, Ran62b, Ran61, Red70, Ree64, Rei65b, Rel62c]. **Algorithm** [Rel62d, Rel62a, Rel62f, Rel62e, Rel62b, Rel62g, Rel63c, Rel63a, Rel63b, Rey61b, Ric61a, Rob67b, Rob69, Rod63a, Rod63c, Rod63b, RG63a, RG63b, Roe62, Rot64, Roy73, Rut62a, Rut62b, Rut63a, Rut63b, Sag64, SS68, Sam65a, Sas61, Sau69, Sch62a, SS62b, SS62c, Sch62b, Sch69b, Sch69d, Sch63f, Sch63e, Sch63g, Sch63h, Sch72b, Sch72a, Sch64b, Sch63i, Sco63, Sco65, Sha62a, Sha62b, Sha63a, ST63, She63, Shi62, Shi64, Sho68, SED69, Sil60a, Sil69, Sim67, Sin68a, Sin68b, Sin69a, Sin69b, Sin69d, Sin69c, Sin69e, Sko75b, Smi62, SA62, Smi66b,

Smi69c, Smi69b, SM70, Sno68, Sol61, Spä67b, Spä67c, Spä67a, Spä67d, Spr60, Sta65b, Sta65c, Ste62, Ste66a, Ste66b, Sto62b, Sto62a, Sto63, Str67, Str62, Sul72, Syn63a, Syn63b, TS69a, Tan63b, Tei65, Tha60a, Tha60b].

#### **Algorithm**

[Tha60c, Tha61a, Tha61b, Tha61c, Tha62d, Tha62a, Tha62e, Tha62b, Tha62c, Tha63a, TS63, Tha63b, Tha63c, Tha63o, Tha63m, Tha63f, Tha63h, Tha63n, Tha63l, Tha63g, Tha63i, Tha63j, Tha63d, Tha63k, Tha63e, Tha64a, Tha64d, Tha66a, Tha66b, Tha67b, Tha67a, Tho63c, Tho63d, Tho63b, Thu63, TS69b, Tro62, Van61, VM69, Var65, Vos73, Wal64, Wal62, Wal63, Was63a, Was63b, Was63c, Was65, Wat69, Weg60b, Wel62b, Wel62a, Wel63a, Wel64b, Wel65, Wel66a, Wel66b, Wel67a, Wel67b, Whi62a, Whi68a, Whi62b, Wil64d, Wil66c, Wil72, Wil73, Wir64, Wir65a, Wir65b, Wit68, Wit63, Woj61, WW63a, Woo61b, Woo61a, WW63b, Wri63, Zie68, van63a, van63b, vdr63].

#### **Algorithmic**

[NBB<sup>+</sup>60, NBB<sup>+</sup>63, Gra62, Rab62].

**Algorithms** [And64, Ano64b, Ano65a, Ano66a, Ano67, Ano68b, Ano69a, Ano69d, BJ66a, For64b, For66b, For66c, GC67, Gra63c, Gri65b, Her66, KP99, Lon70, Nak67, Per66a, RR63, Sho68, Tha63p, Weg60c, Fox69, Gri65a, GLC68, Hut63, Kel61, MC65, Nee66, Tew66, van68b, Bos63d, Fri72, Hil62f, Nau63d, Nau63e, PH66c, Tha62f, Wil61a].

#### **allocating** [O'N61]. **Allocation**

[Fot61, Sat61a, Abr67, Coh61b, Col61c, DGP67, Fit64, HL61, Hol61, JMN61, Kel61, Luc67, Mah61, RK68, Ris61, Rob61b, Sam61a, Sam61b]. **Allocator** [Kno65].

**ALPAC** [Rob67a]. **alpha** [RT64, Yer66].

#### **alphabets** [Sha64]. **Alphanumeric**

[Ano69e, Bow63]. **alternate**

[Bra61b, Moo61a, New64b]. **Ambiguity**

[Kin68, Flo62e, Her69a, Kai62, Ros64d].

**AMBIT** [Chr66]. **Amendment** [Gor64b].

**Amer** [Ort85]. **American**



[Gor64b, GBGL64a, Ano64g, Ano64f, Ano65b, Ano69e, Bar60, GBG63, GBGL64a, Gor64c, Gor65d, Gor65e, LSTG65, Ros63b, Tra65]. **amplification** [Flo60c]. **AMTRAM** [RFSC66]. **Analysis** [BG68b, BKKV68, Ber68a, CM67b, GLC68, How69, Hun68, Low69, MRZ62, Oli68, Par69c, PL65, Rab68a, RR66, SS62a, Ser69, SL68, Wor64, Ano64d, BB66b, BB66a, BF62, Bel67, Bre68, BW63, Car67, Cha61a, Con66, Coo67a, DB64, Dav66, DBT69, Ehr67a, Fis67, Flo64b, For64f, Gar63, GRH61, GPHO62, Goo65, Ham66c, HB63, How62b, LSM62, LW62a, LW62b, LK67, Mah64, MNW65, McI60b, Mei68, MM63, Par66e, Pen64, Pen66, PPR69, RDM63, Sha66a, Smi63a, WW67, Wel64a, Cla69b]. **Analytic** [HCJ62, Bos62, Las69b, Rab68a, Rab68b, Rab68c, Rab69, Ram66]. **analytical** [Wil64c]. **analyze** [Bah68]. **Analyzer** [Kun65, Kun66]. **Analyzing** [MS65, Wei66a, Ham66a, NWW67, Sch68]. **Ancestor** [Flo62c, Tha63o]. **Announcement** [Weg60c]. **annual** [Mos65, Tei64]. **Anomaly** [BNS69]. **ANSI** [Ame66]. **answer** [Pyl65]. **Answering** [Sim65, Sla65, Ros67a]. **any** [Bos63b, Mif63b]. **APAREL** [BF69]. **aperture** [Las69a]. **appear** [Ano62f]. **appendix** [Wal67]. **Application** [AHD63, MM67a, PL65, BS66b, CCMP66, CS63b, Fel66, Gar66, HB66, Nei67, Nic61, San63b, Swe61]. **Applications** [Beh66, FL68, GRH61, Klo65, LHJ68, Mor69b, ORSS68, Rob61a, Sch68, WB65, Aro64, DH97a, Gos65, Kub66a, Kub66b, Lar66a, Mil66, MM67b, Rap66a]. **applied** [Lar66a, RW65, Wat66, WSP63, Ric61b]. **appointment** [Kat69]. **Appointments** [Ano62d, Ano62e, Ano62m]. **appoints** [Ano62g]. **Appraisal** [Cal67b]. **appreciation** [Kri68, Org68]. **Approach** [Cox09, Smi65a, BMMS66, Fau64, Ham67, Ken69, O'N61, STC65]. **Approximate** [Gre64b, Gre68b, GY63, Ska66]. **approximately** [App62]. **approximating** [Kar61, Lub60, Oli61]. **Approximation** [Mif63d, AS69, Bel61a, Fik67a, Gar66, Geo63e, Sch63h]. **Approximations** [CR67, Fik66, Fik67b, Bel61b, Cle61, FH62, FH64, GP64]. **APT** [BDM63]. **arbitrarily** [Sha64]. **Arbitrary** [FS67a, Lea60b, Lew75, Rod63c, Sin68b, Sin69e, TS69a, Col61b, LG62, Whi68a]. **ARCCOSSIN** [Bow65b, Kon63a]. **Arctangent** [Mil64c]. **arctangents** [CS63a]. **Arden** [Wei69a]. **area** [Bak61, Gor63c, Tei64]. **Argentine** [Fin69]. **Argument** [Hol62, Gra61b]. **Arguments** [Gau65a, Jan77, Cob69, Geo63d, Her61f]. **Argus** [Det60]. **Arithmetic** [Ble66a, Blu65, CL61, EV57, Erc60, Ike65, Nak67, Per62b, PS60, Sil60c, BR64a, Bla66b, Boc65, Bro64b, DD68b, Ehr68, Flo61, Geo62e, Gib61, Gol63, GR64, HW61a, Kes62, Mil64b, Red69, Smi69a, Sto67, Wei65b, van63a]. **Arithmetizing** [CS63b]. **ARPA** [Tit67a]. **Array** [Boo67b, Mac69, Bar63b, Gar63, Hel64]. **arrays** [Hel62b, Jod62, Sat61a, Son62]. **Art** [Knu73, Ano64a]. **artificial** [Tra62b]. **ary** [Ken65]. **ASA** [Alt64, Gor61a, Gor61b, Gor62a, Gor65c, Hei64a, Sal66e]. **ASCII** [GBGL64a, BB64, Cro65, Gor66a, Pyl67a]. **ASCII-Octal** [Cro65]. **ASP** [LG68a, LG68b]. **Aspect** [Cod67]. **Aspects** [Rap66a, Law64, Pen66, Sim66]. **assault** [Ski68]. **Assembly** [Del65, GI65, Sam65b, Spe60b, EPV61, Fer66, Sti62]. **Assessment** [Bat61a]. **Assign** [FV63, Háj63, Sco63]. **assigning** [MW66]. **Assignment** [Flo60b, Pat60a, Sil60b, Weg62b, New63c, Sil60a, Wit63]. **assisted** [SS66a]. **Associate** [Her61p, Her61q]. **Associated** [Cle69, Doy62, Fri72, Cob69, Geo63d, Her61f]. **Association** [San61]. **Associative** [FR69, LG68a, Wol68, DGMS66, LG68b]. **Asymptotic** [Cla60b, Cun62a]. **ACTIVE**



[Hau63a, Was65]. **Atlas** [Fot61, How68b]. **atmosphere** [JE69]. **attaining** [Ham67]. **attributes** [SS66a]. **Attrition** [Bat61a]. **Augmentation** [Bre61, Ric61a]. **augmented** [Kun66]. **Augments** [Smi60a]. **August** [Ano62c, Tra60a]. **authorization** [Ros67c]. **Autocode** [Ell62]. **autocorrelation** [Sch65a]. **AUTOMAST** [BB66b]. **Automata** [Fis65, Gre65b, Lai61a, McN68, Arb61]. **Automated** [Las69a, SEFQ66, Ham66a, Kli63, Nag68, Swe61, And65a]. **Automatic** [Ano60c, BB66a, Bra61c, CJ66, CL69, DLW66, EW61, FW65a, Fot61, Hol60a, JPAR68, KM67, LW62a, MdM67, Nau65, Nie65b, Rab66, Sha66a, Smi65a, BB66b, Boo60, Cla66a, Cla67, Cla66b, Col61c, Edm64, Edw63, Gor64a, Gro63, HL61, HW69, Kan64, Pat60a, SL65, Sal66a, Say69a, Say69b, Sch66a, TW66, WG63, Wen64, Yer66]. **Automatic-programming-language** [LW62a]. **automating** [Eck63]. **Automation** [Lah65]. **automaton** [Hei64b]. **Autosate** [Gat64]. **auxiliary** [Bah68]. **available** [Gal62b]. **avenues** [Ham67]. **Average** [Pat69b]. **Avint** [Whi62b]. **Avoiding** [Owe65a, BS64]. **axially** [Gre64b]. **Axiomatic** [CW65, Hoa69]. **AXLE** [CW65, dB66].

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**Transformations** [Bem63, CW65, Ort64, Ort85]. **transformer** [Mac60b]. **Transforms** [Sch60]. **transient** [FL68]. **Transition** [Con63, Gri68].  
**Transition-Diagram** [Con63]. **translated** [Weg62a]. **Translation** [CW62, Del65, Gai65, SB60, BB66b, BB66a,



BG62, Fau64, Gra61a, Ing62c, Lea66, LW62a, Nau66a, Ols65, Tit67g, WM65]. **Translator** [FG68, Gal60b, AGG61a, Bot61, EC61, Hel64, MM65, RSD65]. **transliteration** [WK65]. **Transmission** [Nei65, BSW69, BSW61, BB64, Gor65c, Gor66b, Kuh66, Loh68c, Lyn68, Nie65a, GBGL64a]. **transmission/data** [BSW61]. **Transparent** [Gor65e]. **Transparent-mode** [Gor65e]. **Transport** [Bay65a, Bay65b, Sim67]. **transportation** [DG67, Bay66a, Bay68b, Sim67]. **Transpose** [Boo67b, Mac69]. **trap** [May63]. **trapezoidal** [Rab68c]. **Trdiag** [Spr60]. **treated** [Kuh66]. **treatment** [DPT63, SL62]. **Tree** [Pat69b, SW63, Sta69, Sus63, Cla64]. **Tree-Organized** [SW63]. **Trees** [McI69b, Sal62a, Red69]. **Treesort** [Lon70, Sin69c, Abr65, Flo62b, Flo64a, Kau62a, Kau62b]. **tremendous** [Gro69a]. **trend** [Car66c]. **tri** [Lea60a]. **tri-diagonal** [Lea60a]. **Triangular** [Ono62, Gre68a, HL62]. **Triangulation** [Ble66a, Bla66b]. **Tri-diagonal** [Ros69a, WH61, Nau64a]. **Tri** [Fre60]. **Trigram** [Cox12]. **Triple** [Ike65, Sch63i]. **Triple-Precision** [Ike65]. **trivial** [Wat66]. **Trouble** [Knu67, How68b, Woo69]. **true** [Fei67]. **truly** [Gar68]. **Truncation** [Kah65, Ros65c, Wol64, Hut65a, Sch64a, Whi64b]. **Turanski** [Ano60b]. **Turing** [BJ66b, BJ66c]. **turn** [Cal61]. **Turnaround** [Iro65, Lyn66, Smi67b]. **turning** [BCP62, How68b, Wei62a]. **tutorial** [Ano68a, EH68, Gor65c, Gor65e, Loh68a, Loh68c, Rec66a, Sch62d]. **Twelve** [Gor66f, Gor66e]. **Twelve-row** [Gor66f, Gor66e]. **Twins** [Shi64]. **Two** [Bag60, BJ66b, CH61, Des60, FS66, Ito76, Pri60, Yoa65b, Zie68, BKK65b, BM67a, BJ66c, Col63c, Ehr68, Hem69, Hol64, Kui68, MEF63, Mas60, MRZ62, Nag60, RG66, Tho63d, WW63b, Yoa65a]. **two-level** [BM67a]. **two-point** [BKK65b, Hol64, MRZ62]. **Two-Tape-Unit** [Yoa65b, Yoa65a]. **two-way** [MEF63]. **Type** [Bro62c, KW62c, Bow63, KW62g, SPGH66, Tan63a, Wil64b, Wor64]. **Typesetting** [von67]. **Typewriter** [Moo66, RBCR68]. **ultraviolet** [WSP63]. **Unambiguous** [Joh65]. **UNCOL** [Bra61b]. **Uncomputable** [Dun65b]. **unconstrained** [Ros66a]. **Undergraduate** [Oli66, Atc66b, CHK+65, For64f, Ful67, Kri68, Mil66]. **Understanding** [Wei65a, Qui61, Wei67b]. **understood** [Kle66]. **undirected** [GC67]. **unformatted** [Nag68]. **Uniform** [CM67b, Hut66, TK66, Str67]. **Uniformity** [Whi69]. **unifying** [Coo67a]. **union** [Mil68]. **Unit** [Yoa65b, Yoa65a]. **units** [Whe62]. **Univac** [Wil66b]. **Universal** [DS61]. **universities** [AH64, Ecc61, Fin66, Fin69, PGBF69]. **University** [RSD65, For67, HA67, Lyn66, Ano62o, Ber60a, Bus61, CD65, Fol67, Mor60, SGM+67]. **Unknowns** [DP67, VM69]. **unstable** [BKK67, Wri67]. **Unusual** [Rob61a]. **updating** [Ham66b]. **UPLIFTS** [CD65]. **upon** [SH66, Whi64a]. **URAL** [GT63b]. **URAL-2** [GT63b]. **USA** [Loh68f, Loh68e, Ano69c, Bro63a, Gor63b, Loh68d, Loh69, Tra63]. **USAAI** [Loh68c]. **usage** [CF66, Law64, Ros64c]. **USASCII** [Bem67a]. **USASI** [Ano68a, Loh68a]. **Use** [Bot61, Bro65a, CV63, Del65, Fle65, Fot61, Gri68, Gru62, HO61b, Kan60, Ken60a, Kir65, Lo67, PP62, Sab62, SP66, Sus63, VGB61, Ver65, And66, Arn65, Bar61a, BN64, Bou66, Coh67, Dra64, EPV61, Fre62, Fre63c, Gor65b, Gra62, Hea64, Kat60, MB68, Mor69b, NK62, Sam66c, Sch62c, Sch62d, Sha65, SB63, Smi69a, Taj65, Woo68]. **Used** [Glo63, GPW65, Gor65c, Gor66b]. **useful** [Mei68]. **user** [Bet67, Bla60, Bra68, KM64, Mon65, Sch66a, Swa66]. **user-oriented**



[Bet67, KM64, Mon65, Sch66a]. **Using** [BG69b, Cla69a, DL65, Goe63a, Mon62, Nei65, Ros65c, Sar59, Sin69c, Tra60b, And60a, Bel61a, BJK61, BCK<sup>+</sup>64, BM67a, BRW66, Bri64a, Don69, Edw63, Glu62, Glu63, Goe63b, Gor65e, Hea66c, How67, Hub63, JPAR68, Key63, Lar62b, Lio66, Nie65a, Ost64, Sha66a, Vaz61, Wei64a, Yar68]. **Utility** [Gra68, Blu66, DGMS66]. **utilization** [Ham68].

**V** [BR64b, NT60, New63b, Sha62c]. **validity** [McI60b]. **valuable** [Sch66b]. **Value** [BG69d, Fri67, Wei65a, BJK61, BKK65b, BKK67, Blu69, BG69c, DC64, Day65, Fei67, Gre68b, MPS66, MRZ62]. **valued** [Ber68a]. **Values** [Cle69, Fri72, Pan68b, Gol69, Mou67, Sig66, Smi69c, Tho63a]. **Variable** [Goe63a, Kri65, Pat69b, Ram65, RO63, GS61b, HB62, Kin65a, Rob66a, Son62, Wak63, Wei64a]. **variable-field** [Wei64a]. **Variable-Length** [Goe63a, Wak63]. **variable-word-length** [Son62]. **Variables** [BP68, JCK66, KC63, MMB64a, Mar63, MMB64b, Nat61, Pro69, Sti67, WM66]. **Variance** [Cla69b, How69, Oli68, BW63, Car67, Gar63, How62b, Pen64, Wel64a]. **Variant** [McI63, Fri60, Ilr63]. **variate** [Sch63b]. **various** [SW67, Voo60]. **varying** [Wil66a]. **Vector** [Boo67b, Mac69, Wal63, Gun65a]. **Vectorcardiographic** [FvdGT62]. **vectors** [Tho63a]. **vehicle** [Fis61, Hen66a]. **Verb** [Pat63]. **verbal** [FS62]. **verification** [WG63, Wil61b]. **versa** [Man66]. **versus** [Tit67]. **Very** [Sal69c, Sal69b]. **via** [BMB61, Bre69, DD68b]. **vice** [Man66, Car69]. **Vice-President** [Car69]. **view** [GF68, Sam65c]. **viewed** [Nau66a]. **viewpoint** [Car62, Sch62c]. **Views** [Bar60, Bar64, Gor65a]. **violent** [Sch66b]. **Virtual** [Cox09, DD68a, FY69]. **Virtual-Memory** [FY69]. **visible** [Tit67a]. **vision** [Oet66d]. **visit** [GGJ<sup>+</sup>63].

**vocabularies** [Tra65]. **vocabulary** [Tra64]. **Volume** [FS63]. **vs** [Ehr66, Gor64a, How68a, Knu64, KA69].

**W** [Ric61b]. **walk** [Ono62]. **Washington** [Tit67c, Tit67]. **Waterloo** [SGM<sup>+</sup>67]. **WATFOR** [SGM<sup>+</sup>67]. **Wave** [Gau66b, Gun67, Vos73, Gau69b, Gre68b, Köl69a, Köl69b, Köl69c]. **wavefunctions** [Ree66]. **Way** [Ing61c, Krá68, MEF63]. **Weightcoeff** [Rut62b]. **weighted** [Ska66, Wil61b]. **Weights** [Wel66a, Boo67e, Wel66b]. **Welcoming** [For66g]. **welfare** [Bau64b]. **well** [Kle66]. **Wengert** [BKK65a]. **Western** [Fin66, Sch62c]. **where** [Car66c]. **Which** [Par69a]. **Whither** [Jun64, Mea62]. **width** [RO63]. **Wiener** [Car64]. **Wild** [Cox10]. **William** [Ano60b]. **Wired** [Lyn62]. **Wired-In** [Lyn62]. **Wiring** [Pom65]. **Within** [Nau65, Bar61a, Har65a]. **Without** [Las65, Sar59, Smi65b, Tra60b]. **wood** [Aue65]. **Word** [Des61, Des60, HB62, Hut65a, Mee66, Pri60, Rad63, Son62]. **words** [BG60, Doy62, LR63, Ost62a, Swi60b]. **work** [Map68, SLSS64, Tra64]. **worked** [Cox12]. **Working** [Bro63a, Den68b, Gor63b, Ber60c]. **workshop** [Ano63c]. **Workshops** [Mil61]. **world** [Har68a]. **writer** [Don62]. **Writing** [Bra68, FG68, Gar64a, Goo68, Hut61]. **written** [Eme62].

**x** [CT62, HJ67b, Tha63d, Day63]. **X-ray** [Day63]. **X3** [Gor62a]. **X3-4** [Gor62a]. **X3.4** [Alt64, Gor61a, Gor61b]. **X3.42** [Hau63b]. **X3.9** [Ame66]. **X3.9-1966** [Ame66]. **XTRAN** [Gre60a]. **XY** [Cav64]. **XYMOVE** [Fle63, Sto63].

**Ye** [Bla63b]. **year** [But66]. **years** [Alt62]. **York** [Zak66]. **yours** [Gal69f].

**Z** [Er85, Mis75, Gun65a, Her69b, Nad67, Per69]. **Zero** [Gib63, Bem67c, Gar65, GLC68,



Lo67]. **zero-one** [GLC68]. **Zeros** [DLW66, Lea60b, Cai66, Col61b, HW65, BF61]. **ZER-SOL** [Dom63].

## References

**Abbott:1968:LEG**

[Abb68] Russell J. Abbott. Letter to the Editor: gathering of misleading data with little regard for privacy. *Communications of the ACM*, 11(5):377–378, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Abrams:1965:CAM**

[Abr65] Philip S. Abrams. Certification of Algorithm 245 [M1]: TREESORT 3. *Communications of the ACM*, 8(7):445, July 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Flo64a].

**Abrahams:1966:FSD**

[Abr66] Paul W. Abrahams. A final solution to the dangling **else** of ALGOL 60 and related languages. *Communications of the ACM*, 9(9):679–682, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Abramowich:1967:SAC**

[Abr67] John Abramowich. Storage allocation in a certain iterative process. *Communications of the ACM*, 10(6):368–370, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Abrahams:1968:LEP**

[Abr68] Paul Abrahams. Letter to the Editor: On “prime phrase” in Feldman and Gries paper. *Communications of the ACM*, 11(10):657, October 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Atchison:1968:CRA**

[ACH<sup>+</sup>68] William F. Atchison, Samuel D. Conte, John W. Hamblen, Thomas E. Hull, Thomas A. Keenan, William B. Kehl, Edward J. McCluskey, Silvio O. Navarro, Werner C. Rheinboldt, Earl J. Schweppe, William Viavant, and David M. Young, Jr. Curriculum 68: Recommendations for academic programs in computer science: a report of the ACM Curriculum Committee on Computer Science. *Communications of the ACM*, 11(3):151–197, March 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ackermann:1964:FIL**

[Ack64] A. Frank Ackermann. A Fortran II load-time saver. *Communications of the ACM*, 7(5):310, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Arora:1969:RBS**

[AD69] S. R. Arora and W. T. Dent. Randomized binary search technique. *Communications of the ACM*, 12(2):77–80, February 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Adams:1967:SCP**

- [Ada67] Duane A. Adams. A stopping criterion for polynomial root finding. *Communications of the ACM*, 10(10):655–658, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Adams:1969:RAS**

- [Ada69] Arthur G. Adams. Remark on Algorithm 304 [S15]: Normal curve integral. *Communications of the ACM*, 12(10):565–566, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Aegerter:1959:CST**

- [Aeg59] M. J. Aegerter. Construction of a set of test matrices. *Communications of the ACM*, 2(8):10–12, August 1959. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See comment [Tra60a].

**Arden:1960:LPR**

- [AGG60] B. Arden, B. Galler, and R. Graham. Letters: Preliminary report (February 4, 1960) of Peter Naur. *Communications of the ACM*, 3(6):A13, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [NBB<sup>+</sup>60].

**Arden:1961:IOM**

- [AGG61a] B. W. Arden, B. A. Galler, and R. M. Graham. The internal organization of the MAD translator. *Communications of the ACM*, 4(1):28–31, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Arden:1961:LEC**

- [AGG61b] Bruce Arden, Bernard A. Galler, and Robert M. Graham. Letter to the Editor: criticisms of ALGOL 60. *Communications of the ACM*, 4(7):309, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Arden:1961:AED**

- [AGG61c] Bruce W. Arden, Bernard A. Galler, and Robert M. Graham. An algorithm for equivalence declarations. *Communications of the ACM*, 4(7):310–314, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Arden:1969:MDF**

- [AGG69] Bruce W. Arden, Bernard A. Galler, and Robert M. Graham. The MAD definition facility. *Communications of the ACM*, 12(8):432–439, August 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Armerding:1962:ODL**

- [AGMP62] G. W. Armerding, F. J. Gruenberger, S. L. Marks, and T. R. Parkin. A one-day look at computing. *Communications of the ACM*, 5(9):486–487, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Andrews:1965:LEC**

- [AGP65] A. C. Andrews, E. Winston Grunmeier, and Ben A. Paulson. Letter to the Editor: calculations of first order kinetics problems with more



than one first order region. *Communications of the ACM*, 8(6):347, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Atchison:1964:SCS**

- [AH64] William F. Atchison and John W. Hamblen. Status of computer sciences curricula in colleges and universities. *Communications of the ACM*, 7(4):225–227, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Andrews:1963:AIE**

- [AHD63] A. C. Andrews, John Hassler, and Frank DeCou. Application of IBM 1620 EDP methods to the calculation of the formulation constants of complex ions. *Communications of the ACM*, 6(11):694, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Austin:1967:DCR**

- [AHH67] B. J. Austin, T. S. Holden, and R. H. Hudson. DAD, the C.S.I.R.O operating system. *Communications of the ACM*, 10(9):575–583, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Aigner:1967:LEI**

- [Aig67] Dennis J. Aigner. Letter to the Editor: An interpretive input routine for linear programming. *Communications of the ACM*, 10(1):23–26, January 1967. CODEN CACMA2.

ISSN 0001-0782 (print), 1557-7317 (electronic).

**Aird:1966:AMP**

- [Air66] Thomas J. Aird. Algorithm 285: The mutual primal-dual method. *Communications of the ACM*, 9(5):326–328, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Alberga:1967:SSM**

- [Alb67] Cyril N. Alberga. String similarity and misspellings. *Communications of the ACM*, 10(5):302–313, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Alexander:1961:CAC**

- [Ale61a] Neal L. Alexander. Certification of Algorithm 40: Critical path scheduling. *Communications of the ACM*, 4(9):392, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Alexander:1961:CAR**

- [Ale61b] William J. Alexander. Certification of Algorithm 20: Real exponential integral. *Communications of the ACM*, 4(4):182, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Alexander:1961:CAN**

- [Ale61c] William J. Alexander. Certification of Algorithm 30: Numerical solution of the polynomial equation. *Communications of the ACM*, 4(5):238, May 1961. CODEN CACMA2.



ISSN 0001-0782 (print), 1557-7317 (electronic).

**Allen:1965:CAG**

- [All65] William D. Allen. Certification of Algorithm 246: Graycode. *Communications of the ACM*, 8(6):382, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Abraham:1966:MSP**

- [ALP66] C. Abraham, G. N. Lance, and T. Pearcey. Multiplexing of slow peripherals. *Communications of the ACM*, 9(12):877–878, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Alrich:1966:CDD**

- [Alr66] John C. Alrich. Custom design of a digital system—some case histories. *Communications of the ACM*, 9(7):482, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Alt:1962:FYA**

- [Alt62] Franz L. Alt. Fifteen years ACM. *Communications of the ACM*, 5(6):300–307, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Alt:1964:AXM**

- [Alt64] Franz L. Alt. ASA X3.4 meeting no. 33. *Communications of the ACM*, 7(5):283–287, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**ANSI:1966:AF**

- [Ame66] American National Standards Institute, 1430 Broadway, New York, NY 10018, USA. *ANSI Fortran X3.9-1966*, 1966. ??-?? pp. Approved March 7, 1966 (also known as Fortran 66). See also history in [Hei64a], and subsequent clarifications [ANS69, ANS71].

**Amit:1962:ASP**

- [Ami62] D. Amit. Algorithm 147 [S14]: PSIF. *Communications of the ACM*, 5(12):605, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See certifications [Tha63e, Par69b].

**Anderson:1960:SSO**

- [And60a] W. H. Anderson. The solution of simultaneous ordinary differential equations using a general purpose digital computer. *Communications of the ACM*, 3(6):355–360, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Andrus:1960:NEC**

- [And60b] Jan F. Andrus. Note on eigenvalue computation. *Communications of the ACM*, 3(11):617, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anderson:1964:NSC**

- [And64] James P. Anderson. A note on some compiling algorithms. *Communications of the ACM*, 7(3):149–150, March 1964. CODEN CACMA2.



ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anderson:1965:PAP**

- [And65a] H. E. Anderson. Pracniques: Automated plotting of flow-charts on a small computer. *Communications of the ACM*, 8(1):38–39, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anderson:1965:PSP**

- [And65b] James P. Anderson. Program structures for parallel processing. *Communications of the ACM*, 8(12):786–788, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anderson:1966:MCE**

- [And66] Robert M. Anderson. Management controls for effective and profitable use of EDP resources. *Communications of the ACM*, 9(7):478, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1960:CTH**

- [Ano60a] Anonymous. Corrigendum: “A Technique for Handling Macro Instructions”, by Irwin D. Greenwald, *Communications ACM* **2**, No. 11 (Nov. 1959). *Communications of the ACM*, 3(2):75, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Gre59].

**Anonymous:1960:OWJ**

- [Ano60b] Anonymous. Obituary: William J. Turanski: 1925–1960. *Communica-*

*tions of the ACM*, 3(5):A14, May 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1960:RNA**

- [Ano60c] Anonymous. Research note: Automatic computation in problems of number theory. *Communications of the ACM*, 3(4):247, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1962:CSC**

- [Ano62a] Anonymous. Computer simulation of city traffic. *Communications of the ACM*, 5(4):224–226, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1962:CBM**

- [Ano62b] Anonymous. Conference board of the mathematical sciences. *Communications of the ACM*, 5(8):423–425, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1962:ICM**

- [Ano62c] Anonymous. IFIP Congress-62, Munich, Germany, August 27–September 1, 1962: Abstracts of papers. *Communications of the ACM*, 5(6):312–326, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1962:ICA**

- [Ano62d] Anonymous. IFIP Congress 65 appointments. *Communications of the ACM*, 5(12):620, December



1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1962:ONAb**

- [Ano62e] Anonymous. Official notices: ACM appointments. *Communications of the ACM*, 5(10):497, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1962:ONAc**

- [Ano62f] Anonymous. Official notices: ACM monographs appear. *Communications of the ACM*, 5(11):547, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1962:ONAA**

- [Ano62g] Anonymous. Official notices: AFIPS appoints public affairs director. *Communications of the ACM*, 5(8):425, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1962:OND**

- [Ano62h] Anonymous. Official notices: Decision-making processes in pattern recognition. *Communications of the ACM*, 5(11):547, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1962:ONG**

- [Ano62i] Anonymous. Official notices: Gotlieb new Editor-in-Chief of Communications. *Communications of the ACM*, 5(8):425, August 1962. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1962:ONLc**

- [Ano62j] Anonymous. Official notices: Large-capacity memory techniques for computing systems. *Communications of the ACM*, 5(11):547, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1962:ONLa**

- [Ano62k] Anonymous. Official notices: Leaders for 1963 SJCC picked. *Communications of the ACM*, 5(10):497, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1962:ONLb**

- [Ano62l] Anonymous. Official notices: Location changes for JCC conferences. *Communications of the ACM*, 5(10):497, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1962:ONN**

- [Ano62m] Anonymous. Official notices: New ACM appointments. *Communications of the ACM*, 5(8):425, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1962:RAP**

- [Ano62n] Anonymous. Reiteration of ACM policy toward standardization. *Communications of the ACM*, 5(11):547-549, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Anonymous:1962:UCC**

- [Ano62o] Anonymous. University Computing Center exhibits at ACM 62. *Communications of the ACM*, 5(5):235, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1963:OAR**

- [Ano63a] Anonymous. Official actions and responses to ALGOL as a programming language. *Communications of the ACM*, 6(4):159–160, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1963:RBC**

- [Ano63b] Anonymous. Realizing Boolean connectives on the IBM 1620. *Communications of the ACM*, 6(7):385, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1963:SWC**

- [Ano63c] Anonymous. SIGMAP workshop on control languages for mathematical programming: a report. *Communications of the ACM*, 6(12):750, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1963:SCP**

- [Ano63d] Anonymous. Standards: Common programming languages. *Communications of the ACM*, 6(2):51, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1964:ASA**

- [Ano64a] Anonymous. An ACM state-of-the-art paper. *Communications of the ACM*, 7(6):??, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1964:A**

- [Ano64b] Anonymous. Algorithms. *Communications of the ACM*, 7(6):??, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1964:LE**

- [Ano64c] Anonymous. Letters to the Editor. *Communications of the ACM*, 7(6):379–380, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1964:NA**

- [Ano64d] Anonymous. Numerical analysis. *Communications of the ACM*, 7(6):??, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1964:PL**

- [Ano64e] Anonymous. Programming languages. *Communications of the ACM*, 7(6):??, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1964:PASb**

- [Ano64f] Anonymous. Proposed American Standard: one-inch perforated paper tape for information interchange. *Communications of the ACM*, 7(6):338–339, June 1964. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1964:PA Sa**

- [Ano64g] Anonymous. Proposed American Standard: Perforated Tape Code for Information Interchange. *Communications of the ACM*, 7(6):336–338, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1964:S**

- [Ano64h] Anonymous. Standards. *Communications of the ACM*, 7(6):??, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1964:T**

- [Ano64i] Anonymous. Techniques. *Communications of the ACM*, 7(6):??, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1965:ISA**

- [Ano65a] Anonymous. Index by subject to algorithms, 1965. *Communications of the ACM*, 8(12):791, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1965:PRA**

- [Ano65b] Anonymous. Proposed revised American Standard Code for Information Interchange. *Communications of the ACM*, 8(4):207–214, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1966:ISA**

- [Ano66a] Anonymous. Index by subject to algorithms, 1966. *Communications of the ACM*, 9(12):869–871, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1966:LEC**

- [Ano66b] Anonymous. Letter to the Editor: A counter-example for Gotlieb's method for the construction of school timetables. *Communications of the ACM*, 9(9):697–698, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [CG64, Dun65a].

**Anonymous:1967:ISA**

- [Ano67] Anonymous. Index by subject to algorithms, 1967. *Communications of the ACM*, 10(12):802, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1968:CHC**

- [Ano68a] Anonymous. Correspondences of 8-bit and Hollerith codes for computer environments — a USASI tutorial. *Communications of the ACM*, 11(11):783–??, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1968:ISA**

- [Ano68b] Anonymous. Index by subject to algorithms, 1960–1968. *Communications of the ACM*, 11(12):827–830, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Anonymous:1969:APR**

- [Ano69a] Anonymous. Algorithms policy, revised September, 1969 (includes ALGOL, FORTRAN, and PL/I). *Communications of the ACM*, 12(9):513, September 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1969:CFS**

- [Ano69b] Anonymous. Clarification of FORTRAN standards — initial progress. *Communications of the ACM*, 12(5):289–294, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1969:DCC**

- [Ano69c] Anonymous. Data communication control procedures for the USA Standard Code for Information Interchange. *Communications of the ACM*, 12(3):166–178, March 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1969:ISA**

- [Ano69d] Anonymous. Index by subject to algorithms, 1969. *Communications of the ACM*, 12(12):693, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1969:PAN**

- [Ano69e] Anonymous. Proposed American National Standard: Presentation of alphanumeric characters for information processing. *Communications of the ACM*, 12(12):696–698, December 1969. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anonymous:1969:SIC**

- [Ano69f] Anonymous. Standards Institute changes name. *Communications of the ACM*, 12(12):696–698, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**ANSI:1969:CFS**

- [ANS69] ANSI Subcommittee X3J3. Clarification of Fortran standards—initial progress. *Communications of the ACM*, 12(5):289–294, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Ame66].

**ANSI:1971:CFS**

- [ANS71] ANSI Subcommittee X3J3. Clarification of Fortran standards—second report. *Communications of the ACM*, 14(10):628–642, October 1971. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Ame66].

**Appel:1962:SEP**

- [App62] Klaus Appel. Solution of eigenvalue problems with approximately known eigenvectors. *Communications of the ACM*, 5(7):381, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Anderson:1968:IBT**

- [AR68] Gary B. Anderson and David W. Rogers. An inexpensive Braille terminal device. *Communications of the ACM*, 11(6):417–418, 440, June



1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Arb61] Michael Arbib. Letter to the Editor: self-reproducing automata. *Communications of the ACM*, 4(9):379, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Arc61] Mary Archambault. Ballistic cam design. *Communications of the ACM*, 4(11):513–515, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Ard64] Bruce W. Arden. On introducing digital computing. *Communications of the ACM*, 7(4):212–214, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Ard69] Bruce W. Arden. The role of programming in a Ph.D. computer science program. *Communications of the ACM*, 12(1):31–37, January 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Arm60] Dorothy P. Armstrong. Letter to the Editor: a letter to the President of ACM. *Communications of the ACM*, 3(3):A11, March 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Arm64] Paul Armer. Should ACM have graded memberships? *Communications of the ACM*, 7(10):632, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Arn65] P. H. Arnold. Still another use for FORTRAN II chaining. *Communications of the ACM*, 8(4):234, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Aro64] J. S. Aronofsky. Growing applications of linear programming. *Communications of the ACM*, 7(6):325–332, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Art63] T. D. Arthurs. Algorithm 176: Least squares surface fit. *Communications of the ACM*, 6(6):313, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [Sch72a].
- [AS69] D. E. Amos and M. L. Slater. Polynomial and spline approximation by quadratic programming. *Communications of the ACM*, 12(7):379–381, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**ACM:1968:CRA**

- [Ass68] Association for Computing Machinery. Curriculum 68 — recommendations for academic programs in computer science — A report of the ACM curriculum committee on computer science. *Communications of the ACM*, 11(3):151–197, March 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Atchison:1966:RDC**

- [Atc66a] William E. Atchison. Recent developments in computer science curriculum. *Communications of the ACM*, 9(7):474, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Atchison:1966:MUC**

- [Atc66b] William F. Atchison. Mathematics for undergraduate computer scientists. *Communications of the ACM*, 9(9):662–670, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Atchison:1967:RFC**

- [Atc67] William F. Atchison. A reply to Fulkerson's comments. *Communications of the ACM*, 10(3):148, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Audette:1966:CTC**

- [Aud66] Donald G. Audette. Computer technology in communist China, 1956–1965. *Communications of the ACM*, 9(9):655–661, September 1966. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic).

**Auerbach:1961:IIC**

- [Aue61] Isaac L. Auerbach. The international impact of computers. *Communications of the ACM*, 4(10):466, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Auerbach:1965:GEJ**

- [Aue65] Isaac L. Auerbach. Guest editorial: just as bridges made of wood. *Communications of the ACM*, 8(11):656, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Auerbach:1962:IFI**

- [AWS62] Isaac L. Auerbach, A. Walther, and A. P. Speiser. International federation of information processing news. *Communications of the ACM*, 5(6):308, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Allard:1964:SEC**

- [AWZ64] R. W. Allard, K. A. Wolf, and R. A. Zemlin. Some effects of the 6600 computer on language structures. *Communications of the ACM*, 7(2):112–119, February 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ayers:1963:RPF**

- [Aye63] James A. Ayers. Recursive programming in Fortran II. *Communications of the ACM*, 6(11):667–668, November 1963. CODEN



CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**B:1961:EN**

- [B.61] R. W. B. Editor's note. *Communications of the ACM*, 4(4):166, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bachelor:1961:LEG**

- [Bac61] Gilbert A. Bachelor. Letter to the Editor: on Grau's recursive processes and on compiling expressions in ALGOL. *Communications of the ACM*, 4(6):252–253, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bachman:1966:DFM**

- [Bac66a] Charles Bachman. Development in file manipulation techniques. *Communications of the ACM*, 9(7):481, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bachman:1966:GLF**

- [Bac66b] Charles W. Bachman. On a generalized language for file organization and manipulation. *Communications of the ACM*, 9(3):225–226, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bach:1969:ACR**

- [Bac69a] H. Bach. Algorithm 365: Complex root finding [C5]. *Communications of the ACM*, 12(12):686–687, December 1969. CODEN CACMA2.

ISSN 0001-0782 (print), 1557-7317 (electronic). See [Bac69b].

**Bach:1969:DM**

- [Bac69b] H. Bach. On the downhill method. *Communications of the ACM*, 12(12):675–677, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See algorithm [Bac69a].

**Baecker:1962:IS**

- [Bae62a] H. D. Baecker. Implementing a stack. *Communications of the ACM*, 5(10):505–507, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Baer:1962:NRS**

- [Bae62b] Robert M. Baer. Nonlinear regression and the solution of simultaneous equations. *Communications of the ACM*, 5(7):397–398, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Baecker:1963:MLS**

- [Bae63] H. D. Baecker. Mapped list structures. *Communications of the ACM*, 6(8):435–438, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bagley:1960:TTP**

- [Bag60] Philip R. Bagley. Two think pieces. *Communications of the ACM*, 3(1):1, January 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See letter [Boe60].



**Bahr:1968:LEA**

- [Bah68] Knut Bahr. Letter to the Editor: An auxiliary program to analyze LISP 1.5 programs. *Communications of the ACM*, 11(6):392, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bailey:1964:MSS**

- [Bai64] Michael J. Bailey. More on “simple I/O” statements. *Communications of the ACM*, 7(5):314–315, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Baker:1961:MEA**

- [Bak61] Frank B. Baker. A method for evaluating the area of the normal function. *Communications of the ACM*, 4(5):224–225, May 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Baker:1962:NMB**

- [Bak62] James J. Baker. A note on multiplying Boolean matrices. *Communications of the ACM*, 5(2):102, February 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Baker:1964:ST**

- [Bak64] James J. Baker. Scanning text with a 1401. *Communications of the ACM*, 7(12):726, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Balintfy:1964:MPC**

- [Bal64] Joseph L. Balintfy. Menu planning by computer. *Communications of the ACM*, 7(4):255–259, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Banerji:1962:DLC**

- [Ban62] R. B. Banerji. The description list of concepts. *Communications of the ACM*, 5(8):426–432, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Banzhaf:1965:CPC**

- [Ban65] John F. Banzhaf III. On computers and programs: Copyrights and patents. *Communications of the ACM*, 8(4):220, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Letter to the editor.

**Banzhaf:1967:CIL**

- [Ban67a] John F. Banzhaf. Call for information: law and data processing. *Communications of the ACM*, 10(3):138, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Banzhaf:1967:CCL**

- [Ban67b] John Banzhaf III. Computers and the copyright law: a commentary. *Communications of the ACM*, 10(1):61, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Banzhaf:1968:WYC**

- [Ban68] John F. Banzhaf III. When your computer needs a lawyer. *Communications of the ACM*, 11(8): 543–549, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Barritt:1960:LVO**

- [Bar60] M. M. Barritt. Letters: Views and organization of American computing laboratories. *Communications of the ACM*, 3(6):A14, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Barnett:1961:LLL**

- [Bar61a] M. P. Barnett. Low-level language subroutines for use within Fortran. *Communications of the ACM*, 4(11):492–495, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Barton:1961:ANC**

- [Bar61b] R. S. Barton. Another (nameless) compiler for the Burroughs 220. *Communications of the ACM*, 4(1):A11, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Barton:1961:FDC**

- [Bar61c] Robert S. Barton. Functional design of computers. *Communications of the ACM*, 4(9): 405, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Barnes:1962:LPP**

- [Bar62] Robert F. Barnes. Language problems posed by heavily structured data. *Communications of the ACM*, 5(1):28–34, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Barnecut:1963:CAT**

- [Bar63a] J. N. R. Barnecut. Certification of Algorithm 148: Term of magic square. *Communications of the ACM*, 6(4):168, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Barnett:1963:CON**

- [Bar63b] M. P. Barnett. Continued operation notation for symbol manipulation and array processing. *Communications of the ACM*, 6(8):467–472, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Barnett:1963:TIN**

- [Bar63c] M. P. Barnett. Techniques: Indexing and the A-notation. *Communications of the ACM*, 6(12): 740–745, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Barron:1964:MVM**

- [Bar64] D. W. Barron. More views on monitor systems. *Communications of the ACM*, 7(4):203, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Batchelder:1961:AAD**

- [Bat61a] B. A. Batchelder. ADAM (Attrition Damage Assessment Model). *Communications of the ACM*, 4(2):114, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Batchelder:1961:CBM**

- [Bat61b] B. A. Batchelder. CAIN—a bombing mission planning tool. *Communications of the ACM*, 4(3):139–140, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Batson:1965:OST**

- [Bat65] Alan Batson. The organization of symbol tables. *Communications of the ACM*, 8(2):111–112, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bauer:1961:ARI**

- [Bau61] F. L. Bauer. Algorithm 60: Romberg integration. *Communications of the ACM*, 4(6):255, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bauer:1963:AG**

- [Bau63] F. L. Bauer. Algorithm 153: Gomory. *Communications of the ACM*, 6(2):68, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bauer:1964:RCP**

- [Bau64a] F. L. Bauer. Reply to comments by P. A. Samet and P. J. Taylor.

*Communications of the ACM*, 7(7):447, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bauer:1964:ARW**

- [Bau64b] Walter F. Bauer. On ACM's role and its welfare. *Communications of the ACM*, 7(12):700, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bauer:1966:CCS**

- [Bau66] Walter F. Bauer. Computer/communication systems for business. *Communications of the ACM*, 9(7):474–475, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bayer:1965:AT**

- [Bay65a] G. Bayer. Algorithm 258: Transport. *Communications of the ACM*, 8(6):381–382, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bayer:1965:RAH**

- [Bay65b] G. Bayer. Remark on Algorithm 258 [H]: Transport. *Communications of the ACM*, 8(7):445, July 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bayer:1966:ATP**

- [Bay66a] G. Bayer. Algorithm 293: Transportation problem. *Communications of the ACM*, 9(12):869–871, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Bayer:1966:RAK**

- [Bay66b] G. Bayer. Remark on Algorithm 218: Kutta–Merson. *Communications of the ACM*, 9(4):273, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bayer:1968:AMH**

- [Bay68a] G. Bayer. Algorithm 324: Maxflow [H]. *Communications of the ACM*, 11(2):117–118, February 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [Bay73].

**Bayer:1968:RAT**

- [Bay68b] G. Bayer. Remark on Algorithm 293 [H]: Transportation problem. *Communications of the ACM*, 11(4):271–272, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bayes:1968:GPP**

- [Bay68c] A. Bayes. A generalized partial-pass block sort. *Communications of the ACM*, 11(7):491–493, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bayes:1969:RTP**

- [Bay69] A. J. Bayes. Retrieval times for a packed direct access inverted file. *Communications of the ACM*, 12(10):582–583, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bayer:1973:RAM**

- [Bay73] G. Bayer. Remark on “Algorithm 324: Maxflow”. *Communications of the ACM*, 16(5):309–??, 1973. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Bay68a].

**Bemer:1964:CBS**

- [BB64] R. W. Bemer and J. Booth. Comments on bit-sequencing of the ASCII in serial-by-bit data transmission. *Communications of the ACM*, 7(8):483–485, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ball:1966:AMA**

- [BB66a] William E. Ball and Robert I. Berns. AUTOMAST: Automatic mathematical analysis and symbolic translation. *Communications of the ACM*, 9(8):626–633, August 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ball:1966:AAM**

- [BB66b] William E. Ball and Robert I. Berns. AUTOMAST: automatic mathematical analysis and symbolic translation. *Communications of the ACM*, 9(8):626–633, August 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bosten:1974:RAI**

- [BB74] Nancy E. Bosten and E. L. Battiste. Remark on “Algorithm 179: Incomplete beta ratio”. *Communications*



of the *ACM*, 17(3):156–157, March 1974. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Lud63, PS76].

**Bailey:1964:SMF**

- [BBB64] M. J. Bailey, M. P. Barnett, and P. B. Burleson. Symbol manipulation in FORTRAN: SASP I subroutines. *Communications of the ACM*, 7(6):339–346, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bailey:1963:FFI**

- [BBF63] M. J. Bailey, M. P. Barnett, and R. P. Futrelle. Format-free input in FORTRAN. *Communications of the ACM*, 6(10):605–608, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bellman:1965:NID**

- [BBK65] R. E. Bellman, J. D. Buell, and R. E. Kalaba. Numerical integration of a differential-difference equation with a decreasing time-lag. *Communications of the ACM*, 8(4):227–228, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bellman:1966:MET**

- [BBK66] Richard Bellman, June Buell, and Robert Kalaba. Mathematical experimentation in time-lag modulation. *Communications of the ACM*, 9(10):752–754, October 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bosak:1962:IAP**

- [BCD<sup>+</sup>62] Robert Bosak, Richard F. Clippingier, Carey Dobbs, Roy Goldfinger, Renee B. Jasper, William Keating, George Kendrick, and Jean E. Sammet. An information algebra: Phase 1 Report—Language Structure Group of the CODASYL Development Committee. *Communications of the ACM*, 5(4):190–204, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bellman:1964:EHP**

- [BCK<sup>+</sup>64] R. Bellman, C. Collier, H. Kagiwada, R. Kalaba, and R. Selvester. Estimation of heart parameters using skin potential measurements. *Communications of the ACM*, 7(11):666–668, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bloom:1962:PTM**

- [BCP62] Leon Bloom, Morris Cohen, and Sigmund Porter. Page turning in multiprogrammed computers. *Communications of the ACM*, 5(12):574–575, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bachelor:1961:S**

- [BDKS61] G. A. Bachelor, J. R. H. Dempster, Donald E. Knuth, and J. Speroni. SMALGOL-61. *Communications of the ACM*, 4(11):499–502, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Brown:1963:DAL**

- [BDM63] S. A. Brown, C. E. Drayton, and B. Mittman. A description of the APT language. *Communications of the ACM*, 6(11):649–658, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Busam:1969:OEF**

- [BE69] Vincent A. Busam and Donald E. Englund. Optimization of expressions in Fortran. *Communications of the ACM*, 12(12):666–674, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Beam:1960:ACE**

- [Bea60] A. Beam. Algorithm 14: Complex exponential integral. *Communications of the ACM*, 3(7):406, July 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Behrenz:1962:AR**

- [Beh62a] Peter G. Behrenz. Algorithm 133: RANDOM. *Communications of the ACM*, 5(11):553, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Behrenz:1962:CAG**

- [Beh62b] Peter G. Behrenz. Certification of Algorithm 31: Gamma function. *Communications of the ACM*, 5(12):605, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Behrenz:1962:CAS**

- [Beh62c] Peter G. Behrenz. Certification of Algorithm 84: Simpson's integration. *Communications of the ACM*, 5(11):557, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Behrenz:1962:RAR**

- [Beh62d] Peter G. Behrenz. Remark on Algorithm 133: Random. *Communications of the ACM*, 5(12):606, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Behrenz:1962:RAM**

- [Beh62e] Peter G. Behrenz. Remark on Algorithm 58: Matrix inversion. *Communications of the ACM*, 5(12):606, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Behrenz:1963:CAG**

- [Beh63] Peter G. Behrenz. Certification of Algorithm 31: GAMMA function. *Communications of the ACM*, 6(1):38, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Behar:1966:ACG**

- [Beh66] Joseph Behar. Applications of computer graphics. *Communications of the ACM*, 9(7):484, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bellman:1961:ACL**

- [Bel61a] Richard Bellman. On the approximation of curves by line segments



using dynamic programming. *Communications of the ACM*, 4(6):284, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bellman:1961:SAC**

- [Bel61b] Richard Bellman. Successive approximations and computer storage problems in ordinary differential equations. *Communications of the ACM*, 4(5):222–223, May 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bell:1967:DPA**

- [Bel67] Earl J. Bell. Decomposition programming: an analysis of matrix substructure. *Communications of the ACM*, 10(10):624–626, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bell:1968:ANR**

- [Bel68] James R. Bell. Algorithm 334: Normal random deviates [G5]. *Communications of the ACM*, 11(7):498, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Tra82].

**Bell:1969:NMD**

- [Bel69] James R. Bell. A new method for determining linear precedence functions for precedence grammars. *Communications of the ACM*, 12(10):567–569, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bemer:1960:DIN**

- [Bem60a] R. W. Bemer. Do it by the numbers—digital shorthand. *Communications of the ACM*, 3(10):530–536, October 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bemer:1960:SCC**

- [Bem60b] R. W. Bemer. Survey of coded character representation. *Communications of the ACM*, 3(12):639–642, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bemer:1960:PCC**

- [Bem60c] Robert W. Bemer. A proposal for character code compatibility. *Communications of the ACM*, 3(2):71–72, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bemer:1961:LER**

- [Bem61] R. W. Bemer. Letter to the Editor: Re: René De La Briandais' letter on FORTRAN. *Communications of the ACM*, 4(3):A12–A13, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [De 61].

**Bemer:1963:NRT**

- [Bem63] R. W. Bemer. A note on range transformations for square root and logarithm. *Communications of the ACM*, 6(6):306–307, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Bemer:1967:EFU**

- [Bem67a] R. W. Bemer. ESC facility in USASCII. *Communications of the ACM*, 10(4):202, April 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bemer:1967:LEF**

- [Bem67b] R. W. Bemer. Letter to the Editor: on format effectors. *Communications of the ACM*, 10(7):396, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bemer:1967:TSH**

- [Bem67c] R. W. Bemer. Towards standards for handwritten zero and oh: much ado about nothing (and a letter), or a partial dossier on distinguishing between handwritten zero and oh. *Communications of the ACM*, 10(8):513–518, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Benjamin:1965:SER**

- [Ben65] R. I. Benjamin. The Spectra 70/45 emulator for the RCA 301. *Communications of the ACM*, 8(12):748–752, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bennett:1968:LEB**

- [Ben68] Richard K. Bennett. Letter to the Editor: A base for language definition. *Communications of the ACM*, 11(9):594, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Berezin:1960:DCM**

- [Ber60a] I. S. Berezin. The Department of Computer Mathematics at Moscow State University. *Communications of the ACM*, 3(6):342–344, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Berin:1960:RCE**

- [Ber60b] A. Berin. Rapidly convergent expressions for evaluating  $e^x$ . *Communications of the ACM*, 3(9):500, September 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Berkeley:1960:LFR**

- [Ber60c] Edmund C. Berkeley. Letters: First regional meeting of a Working Group for Better Education. *Communications of the ACM*, 3(6):A13–A14, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bernstein:1962:MFM**

- [Ber62] Michael H. Bernstein. A missing factor in medical case history? *Communications of the ACM*, 5(12):575, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Berztiss:1965:NSS**

- [Ber65] A. T. Berztiss. A note on storage of strings. *Communications of the ACM*, 8(8):512–513, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Bergson:1966:CAE**

- [Ber66] A. Bergson. Certification of Algorithm 41: Evaluation of determinant and Algorithm 269: Determinant evaluation. *Communications of the ACM*, 9(9):686, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bergland:1968:NAF**

- [Ber68a] Glenn D. Bergland. Numerical analysis: A Fast Fourier Transform algorithm for real-valued series. *Communications of the ACM*, 11(10):703–710, October 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bergson:1968:ACR**

- [Ber68b] A. Bergson. Certification of and remark on Algorithm 304 [S15]: Normal curve integral. *Communications of the ACM*, 11(4):271, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [HJ67a, HJ67b].

**Berns:1969:DFT**

- [Ber69] Gerald M. Berns. Description of FORMAT, a text-processing program. *Communications of the ACM*, 12(3):141–146, March 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Betyar:1967:UOT**

- [Bet67] Laszlo Betyar. A user-oriented time-shared online system. *Communications of the ACM*, 10(7):413–419, July 1967. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Beyer:1964:NSN**

- [Bey64] W. A. Beyer. A note on starting the Newton–Raphson method. *Communications of the ACM*, 7(7):442, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bareiss:1961:AZR**

- [BF61] E. H. Bareiss and M. A. Fisherkeller. Algorithm 59: Zeros of a real polynomial by resultant procedure. *Communications of the ACM*, 4(5):236–237, May 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Barnett:1962:SAD**

- [BF62] M. P. Barnett and R. P. Futrelle. Syntactic analysis by digital computer. *Communications of the ACM*, 5(10):515–526, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bobrow:1968:PRT**

- [BF68] Daniel G. Bobrow and J. Bruce Fraser. A phonological rule tester. *Communications of the ACM*, 11(11):766–772, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Balzer:1969:APR**

- [BF69] R. M. Balzer and D. J. Farber. APAREL — A parse-request language. *Communications of the ACM*, 12(11):624–631, November 1969. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Barrett:1960:AWS**

- [BG60] June A. Barrett and Mandalay Grems. Abbreviating words systematically. *Communications of the ACM*, 3(5):323–324, May 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bottenbruch:1962:TBE**

- [BG62] H. H. Bottenbruch and A. A. Grau. On translation of Boolean expressions. *Communications of the ACM*, 5(7):384–386, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Belzer:1964:TCI**

- [BG64] Jack Belzer and W. Goffman. Theoretical considerations in information retrieval systems. *Communications of the ACM*, 7(7):439–442, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bartels:1968:ACS**

- [BG68a] Richard H. Bartels and Gene H. Golub. Algorithm 328: Chebyshev solution to an overdetermined linear system [F4]. *Communications of the ACM*, 11(6):428–430, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See certification [Sch69d].

**Bartels:1968:NAS**

- [BG68b] Richard H. Bartels and Gene H. Golub. Numerical analysis: Sta-

ble numerical methods for obtaining the Chebyshev solution to an overdetermined system of equations. *Communications of the ACM*, 11(6):401–406, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See algorithm [BG68a].

**Bartels:1969:ASM**

- [BG69a] Richard H. Bartels and Gene H. Golub. Algorithm 350: Simplex method procedure employing *LU* decomposition [H]. *Communications of the ACM*, 12(5):275–278, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bartels:1969:SML**

- [BG69b] Richard H. Bartels and Gene H. Golub. The simplex method of linear programming using *LU* decomposition. *Communications of the ACM*, 12(5):266–268, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Businger:1969:SVD**

- [BG69c] P. A. Businger and G. H. Golub. Singular value decomposition of a complex matrix. *Communications of the ACM*, 12(10):564–565, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Businger:1969:ASV**

- [BG69d] Peter A. Businger and Gene H. Golub. Algorithm 358: Singular value decomposition of a complex matrix [F1, 4, 5]. *Communications*



of the *ACM*, 12(10):564–565, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bayer:1967:AIP**

- [BGPW67] R. Bayer, D. Gries, M. Paul, and H. R. Wiehle. The ALCOR Illinois 7090/7094 post mortem dump. *Communications of the ACM*, 10(12):804–808, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Barnett:1964:CCO**

- [BGS64] M. P. Barnett, J. M. Gerard, and A. W. Sambles. Comments on “a continued operation notation”. *Communications of the ACM*, 7(3):150–152, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Baskin:1969:MCS**

- [BHTR69] Herbert B. Baskin, Elsa B. Horowitz, Robert D. Tennison, and Larry E. Rittenhouse. A modular computer sharing systems. *Communications of the ACM*, 12(10):551–559, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bingham:1967:IIM**

- [Bin67] John A. C. Bingham. An improvement to iterative methods of polynomial factorization. *Communications of the ACM*, 10(1):57–60, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bitterli:1963:CAO**

- [Bit63] C. V. Bitterli. Certification of Algorithm 164: Orthogonal polynomial least squares surface fit. *Communications of the ACM*, 6(8):450, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bell:1966:LEP**

- [BJ66a] E. J. Bell and C. Jennings. Letter to the Editor: On primal-dual algorithms. *Communications of the ACM*, 9(9):653, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [MC65].

**Boehm:1966:FDT**

- [BJ66b] C. Boehm and G. Jacopini. Flow diagrams, Turing machines, and languages with only two formation rules. *Communications of the ACM*, 9(5):366–371, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bohm:1966:FDT**

- [BJ66c] Corrado Böhm and Giuseppe Jacopini. Flow diagrams, Turing machines and languages with only two formation rules. *Communications of the ACM*, 9(5):366–371, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bellman:1961:SNE**

- [BJK61] Richard Bellman, Mario L. Juncosa, and Robert Kalaba. Some



numerical experiments using Newton's method for nonlinear parabolic and elliptic boundary-value problems. *Communications of the ACM*, 4(4):187–191, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Belady:1969:DSS**

- [BKK69] L. A. Belady and C. J. Kuehner. Dynamic space-sharing in computer systems. *Communications of the ACM*, 12(5):282–288, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bellman:1965:WNM**

- [BKK65a] R. E. Bellman, Harriet H. Kagiwada, and Robert E. Kalaba. Wengert's numerical method for partial derivatives, orbit determination, and quasilinearization. *Communications of the ACM*, 8(4):231–232, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bellman:1965:NET**

- [BKK65b] Richard Bellman, Harriet Kagiwada, and Robert Kalaba. Nonlinear extrapolation and two-point boundary value problems. *Communications of the ACM*, 8(8):511–512, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Budea:1965:TIR**

- [BKK65c] N. Budea, J. G. Kamena, and R. M. Kamena. A technique for integrated reports from a multi-run sys-

tem. *Communications of the ACM*, 8(6):383–384, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bellman:1966:QCE**

- [BKK66] Richard Bellman, Harriet Kagiwada, and Robert Kalaba. Quasilinearization and the calculation of eigenvalues. *Communications of the ACM*, 9(7):522–524, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bellman:1967:IIN**

- [BKK67] R. E. Bellman, H. H. Kagiwada, and R. E. Kalaba. Invariant imbedding and the numerical integration of boundary-value problems for unstable linear systems of ordinary differential equations. *Communications of the ACM*, 10(2):100–102, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bellman:1968:NAQ**

- [BKKV68] R. E. Bellman, H. H. Kagiwada, R. E. Kalaba, and R. Vasudevan. Numerical analysis: Quasilinearization and the estimation of differential operators from eigenvalues. *Communications of the ACM*, 11(4):255–256, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Busing:1962:PIL**

- [BL62] William R. Busing and Henri A. Levy. A procedure for inverting large symmetric matrices. *Communications of the ACM*, 5(8):



445–446, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Blatt:1960:CFU**

- [Bla60] John M. Blatt. Comments from a FORTRAN user. *Communications of the ACM*, 3(9):501–505, September 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Blachman:1961:SDC**

- [Bla61] Nelson M. Blachman. The state of digital computer technology in Europe. *Communications of the ACM*, 4(6):256, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Blakely:1963:CAC**

- [Bla63a] Robert F. Blakely. Certification of Algorithm 160 combinatorial of  $M$  things taken  $N$  at a time. *Communications of the ACM*, 6(10):618, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Blatt:1963:YIM**

- [Bla63b] John M. Blatt. Ye indiscreet monitor. *Communications of the ACM*, 6(9):506–510, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Blair:1964:CAM**

- [Bla64a] C. R. Blair. Certification of Algorithm 271 (M1) quicksort. *Communications of the ACM*, 9(5):354, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Blair:1964:CAS**

- [Bla64b] Charles R. Blair. Certification of Algorithm 207: Stringsort. *Communications of the ACM*, 7(10):585, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Blair:1966:CAQ**

- [Bla66a] Charles R. Blair. Certification of Algorithm 271: Quicksort. *Communications of the ACM*, 9(5):354, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Blankinship:1966:AMT**

- [Bla66b] W. A. Blankinship. Algorithm 287: Matrix triangulation with integer arithmetic [F1]. *Communications of the ACM*, 9(7):513, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Blankinship:1966:ASS**

- [Bla66c] W. A. Blankinship. Algorithm 288: Solution of simultaneous linear Diophantine equations [F4]. *Communications of the ACM*, 9(7):514, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Becker:1965:LEP**

- [BLC65] Hal C. Becker, Herbert E. Longenecker, Jr., and L. Chopin Cusachs. Letter to the Editor: pictures of molecular orbitals. *Communications of the ACM*, 8(9):542, 582, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Blenkinship:1966:AMT**

- [Ble66a] W. A. Blenkinship. Algorithm 287: Matrix triangulation with integer arithmetic. *Communications of the ACM*, 9(7):513, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Blenkinship:1966:ASS**

- [Ble66b] W. A. Blenkinship. Algorithm 288: Solution of simultaneous linear Diophantine equations [F4]. *Communications of the ACM*, 9(7):514, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Blum:1965:EAP**

- [Blu65] B. I. Blum. An extended arithmetic package. *Communications of the ACM*, 8(5):318–320, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Blum:1966:FTI**

- [Blu66] B. I. Blum. Free-text inputs to utility routines. *Communications of the ACM*, 9(7):525–526, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Blue:1969:SFM**

- [Blu69] James L. Blue. Spline function methods for nonlinear boundary-value problems. *Communications of the ACM*, 12(6):327–330, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bobrow:1967:PTS**

- [BM67a] Daniel G. Bobrow and Daniel L. Murphy. Programming techniques: Structure of a LISP system using two-level storage. *Communications of the ACM*, 10(3):155–159, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bratley:1967:ASP**

- [BM67b] P. Bratley and J. K. S. McKay. Algorithm 305: Symmetric polynomials [C1]. *Communications of the ACM*, 10(7):450, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bratley:1967:AMD**

- [BM67c] P. Bratley and J. K. S. McKay. Algorithm 313: Multi-dimensional partition generator. *Communications of the ACM*, 10(10):666, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bobrow:1968:NEL**

- [BM68] Daniel G. Bobrow and Daniel L. Murphy. A note on the efficiency of a LISP computation in a paged machine. *Communications of the ACM*, 11(8):558, 560, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bennett:1961:MMC**

- [BMB61] Edward M. Bennett, Rollin P. Mayer, and Philip R. Bagley. Man-machine communication via simplified English. *Communications*



of the *ACM*, 4(5):235–236, May 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Beyer:1968:LEC**

- [BMB68] J. D. Beyer, W. D. Maurer, and Frank K. Bamberger. Letter to the Editor: Comments on “an improved hash code for scatter storage”. *Communications of the ACM*, 11(5):378, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bhimani:1966:ASS**

- [BMMS66] B. V. Bhimani, R. D. Merrill, R. R. Mitchell, and M. R. Stark. An approach to speech synthesis and recognition on a digital computer. *Communications of the ACM*, 9(7):478, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bennett:1964:EEC**

- [BN64] Richard K. Bennett and H. David Neumann. Extension of existing compilers by sophisticated use of macros. *Communications of the ACM*, 7(9):541–542, September 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Burdick:1966:DCS**

- [BN66] Donald S. Burdick and Thomas H. Naylor. Design of computer simulation experiments for industrial systems. *Communications of the ACM*, 9(5):329–339, May 1966. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic).

**Belady:1969:AST**

- [BNS69] L. A. Belady, R. A. Nelson, and G. S. Shedler. An anomaly in space-time characteristics of certain programs running in a paging machine. *Communications of the ACM*, 12(6):349–353, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boas:1966:CLR**

- [Boa66] R. P. Boas. Capitalization of language references. *Communications of the ACM*, 9(6):409, June 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boche:1965:LES**

- [Boc65] Ray Boche. Letter to the Editor: Some observations on the economics of interval arithmetic. *Communications of the ACM*, 8(11):649, 703, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Letter to the editor.

**Boehm:1960:LEM**

- [Boe60] Hans G. Boehm. Letters to the Editor: Mr. Bagley and bugs in hardware and software. *Communications of the ACM*, 3(4):A13, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Bag60].

**Bohnert:1962:DPC**

- [Boh62a] H. G. Bohnert. Discussion—the pros and cons of a special IR lan-



guage: comments. *Communications of the ACM*, 5(1):10, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bohnert:1962:LEG**

- [Boh62b] Herbert G. Bohnert. Logic of English grammar. *Communications of the ACM*, 5(7):398, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Booth:1960:FAD**

- [Boo60] Andrew D. Booth. The future of automatic digital computers. *Communications of the ACM*, 3(6):339–341, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boothroyd:1963:ASa**

- [Boo63a] J. Boothroyd. Algorithm 201: Shellsort. *Communications of the ACM*, 6(8):445, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boothroyd:1963:ASb**

- [Boo63b] J. Boothroyd. Algorithm 207: Stringsor. *Communications of the ACM*, 6(10):615, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boothroyd:1964:AMP**

- [Boo64a] J. Boothroyd. Algorithm 230: Matrix permutation. *Communications of the ACM*, 7(6):347, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boothroyd:1964:AMI**

- [Boo64b] J. Boothroyd. Algorithm 231: Matrix inversion. *Communications of the ACM*, 7(6):347, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boothroyd:1964:AG**

- [Boo64c] J. Boothroyd. Algorithm 246: Graycode. *Communications of the ACM*, 7(12):701, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Mis75, Er85].

**Boonin:1965:PCW**

- [Boo65a] Lawrence I. Boonin. Patents and copyrights — what should be protected? *Communications of the ACM*, 8(7):474, July 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boonstra:1965:AIP**

- [Boo65b] B. H. Boonstra. Algorithm 250: Inverse permutation [G6]. *Communications of the ACM*, 8(2):104, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boothroyd:1965:CAB**

- [Boo65c] J. Boothroyd. Certification of Algorithm 243 [B3]: Logarithm of a complex number. *Communications of the ACM*, 8(5):279, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Boothroyd:1966:AGH**

- [Boo66a] J. Boothroyd. Algorithm 274: Generation of Hilbert derived test matrix. *Communications of the ACM*, 9(1):11–12, January 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boothroyd:1966:ALE**

- [Boo66b] J. Boothroyd. Algorithm 290: Linear equations exact solutions. *Communications of the ACM*, 9(9):683–684, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boothroyd:1967:AEE**

- [Boo67a] J. Boothroyd. Algorithm 297: Eigenvalues and eigenvectors of the symmetric system  $(\mathbf{A} - \lambda\mathbf{B})\mathbf{X} = \mathbf{0}$ . *Communications of the ACM*, 10(3):181–182, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boothroyd:1967:ATV**

- [Boo67b] J. Boothroyd. Algorithm 302: Transpose vector stored array. *Communications of the ACM*, 10(5):292–293, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boothroyd:1967:ACC**

- [Boo67c] J. Boothroyd. Algorithm 318: Chebyshev curve-fit (revised) [E2]. *Communications of the ACM*, 10(12):801, 803, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). This procedure is an extensive revision of Algorithm 91 (Albert

Newhouse, Chebyshev Curve-Fit, *Comm. ACM* **5** (May 1961), 281 [New62].

**Boothroyd:1967:CAE**

- [Boo67d] J. Boothroyd. Certification of Algorithm 91 [E2]: Chebyshev curve-fit. *Communications of the ACM*, 10(12):803, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boothroyd:1967:RAA**

- [Boo67e] J. Boothroyd. Remark on Algorithm 281: Abscissas and weights for Romberg quadrature. *Communications of the ACM*, 10(3):188, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boothroyd:1969:RAF**

- [Boo69] J. Boothroyd. Remark on Algorithm 274 [F1]: Generation of Hilbert derived test matrix. *Communications of the ACM*, 12(7):407–408, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Borko:1962:CAA**

- [Bor62] Harold Borko. Criteria for acceptable abstracts. *Communications of the ACM*, 5(6):356, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boswell:1962:CAD**

- [Bos62] Gary Boswell. Comment on analytic differentiation by computer. *Communications of the ACM*, 5(11):545, November 1962. CODEN



CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bosworth:1963:CACa**

- [Bos63a] K. M. Bosworth. Certification of Algorithm 154: Combination in lexicographical order. *Communications of the ACM*, 6(8):449, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bosworth:1963:CACb**

- [Bos63b] K. M. Bosworth. Certification of Algorithm 155: Combination in any order. *Communications of the ACM*, 6(8):449, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bosworth:1963:CAA**

- [Bos63c] K. M. Bosworth. Certification of Algorithm 156: Algebra of sets. *Communications of the ACM*, 6(8):450, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bosworth:1963:CAM**

- [Bos63d] K. M. Bosworth. Certifications of Algorithms 117 and 118: Magic square (odd and even orders). *Communications of the ACM*, 6(3):105, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bottenbruch:1961:UMT**

- [Bot61] H. Bottenbruch. Use of magnetic tape for data storage in the ORACLE-ALGOL translator. *Communications of the ACM*, 4(1):15–19, January 1961. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bouman:1962:AIO**

- [Bou62] C. A. Bouman. An advanced input-output system for a COBOL compiler. *Communications of the ACM*, 5(5):273–277, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boussard:1966:ACC**

- [Bou66] J. C. Boussard. An ALGOL compiler: construction and use in relation to an elaborate operating system. *Communications of the ACM*, 9(3):179–182, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bowlden:1963:LTS**

- [Bow63] Henry J. Bowlden. A list-type storage technique for alphanumeric information. *Communications of the ACM*, 6(8):433–434, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bowlden:1965:CAA**

- [Bow65a] Henry J. Bowlden. Certification of Algorithm 139 [A1]: Solutions of the Diophantine equation. *Communications of the ACM*, 8(3):170–171, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bowlden:1965:RAA**

- [Bow65b] Henry J. Bowlden. Remark on “Algorithm 206 [B1]: ARCCOSSIN”. *Communications of the ACM*, 8



(2):104–105, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Kon63a].

**Boyell:1962:RTS**

- [Boy62] Roger L. Boyell. Real-time simulation of mapping radar. *Communications of the ACM*, 5(1):61, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bell:1966:RAE**

- [BP66] M. Bell and M. C. Pike. Remark on Algorithm 178 [E4] direct search. *Communications of the ACM*, 9(9):684–685, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bond:1967:AAF**

- [BP67] Gillian Bond and M. L. V. Pitteway. Algorithm 301: Airy function. *Communications of the ACM*, 10(5):291–292, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Byrne:1968:ASL**

- [BP68] J. L. Byrne and L. G. Proll. Algorithm 341: Solution of linear programs in 0-1 variables by implicit enumeration (H). *Communications of the ACM*, 11(11):782, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Baer:1964:MPA**

- [BR64a] Robert M. Baer and Martin G. Redlich. Multiple-precision arithmetic and the exact calculation of

the 3- $j$ , 6- $j$  and 9- $j$  symbols. *Communications of the ACM*, 7(11):657–659, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bobrow:1964:CLP**

- [BR64b] Daniel G. Bobrow and Bertram Raphael. A comparison of list-processing computer languages: including a detailed comparison of COMIT, IPL-V, LISP 1.5, and SLIP. *Communications of the ACM*, 7(4):231–240, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brown:1969:CB**

- [BR69] W. S. Brown and P. L. Richman. The choice of base. *Communications of the ACM*, 12(10):560–561, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bramhall:1961:IMI**

- [Bra61a] J. N. Bramhall. An iterative method for inversion of power series. *Communications of the ACM*, 4(7):317–318, 503, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bratman:1961:AFU**

- [Bra61b] Harvey Bratman. A alternate form of the “UNCOL diagram”. *Communications of the ACM*, 4(3):142, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Bratman:1961:AC**

- [Bra61c] Harvey Bratman. Automatic coding. *Communications of the ACM*, 4(3):140, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bray:1964:CAGa**

- [Bra64a] T. A. Bray. Certification of Algorithm 225: Gamma function with controlled accuracy. *Communications of the ACM*, 7(10):586, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bray:1964:CAGb**

- [Bra64b] T. A. Bray. Certification of Algorithm 237: Greatest common divisor. *Communications of the ACM*, 7(12):702–703, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bratley:1967:APR**

- [Bra67] P. Bratley. Algorithm 306: Permutations with repetitions [G6]. *Communications of the ACM*, 10(7):450–451, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brady:1968:WOD**

- [Bra68] Paul T. Brady. Writing an online debugging program for the experienced user. *Communications of the ACM*, 11(6):423–427, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bray:1969:CAB**

- [Bra69] T. A. Bray. Certification of Algorithm 229 [B1]: Elementary functions by continued fractions. *Communications of the ACM*, 12(12):692, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bond:1969:IGD**

- [BRC69] Alan H. Bond, Jerry Rightnour, and L. Steven Coles. An interactive graphical display monitor in a batch-processing environment with remote entry. *Communications of the ACM*, 12(11):595–603, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Breed:1961:CAA**

- [Bre61] L. M. Breed. Certification of Algorithm 68: Augmentation. *Communications of the ACM*, 4(11):498, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brenner:1962:SMT**

- [Bre62] J. L. Brenner. A set of matrices for testing computer programs. *Communications of the ACM*, 5(8):443–444, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Breuer:1964:TSC**

- [Bre64] Melvin A. Breuer. Techniques for the simulation of computer logic. *Communications of the ACM*, 7(7):443–446, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Breaux:1968:MET**

- [Bre68] Harold J. Breaux. A modification of Efroymsen's technique for step-wise regression analysis. *Communications of the ACM*, 11(8):556–558, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Breuer:1969:GOC**

- [Bre69] Melvin A. Breuer. Generation of optimal code for expressions via factorization. *Communications of the ACM*, 12(6):333–340, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bridges:1963:CAT**

- [Bri63a] James F. Bridges. Certification of Algorithm 38: Telescope 2. *Communications of the ACM*, 6(8):445, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Briggs:1963:AME**

- [Bri63b] William A. Briggs. Algorithm 217: Minimum excess cost curve. *Communications of the ACM*, 6(12):737, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brian:1964:PBT**

- [Bri64a] W. J. Brian. A parts breakdown technique using list structures. *Communications of the ACM*, 7(6):362–365, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bright:1964:PAO**

- [Bri64b] Herbert S. Bright. A proposal on ACM organization. *Communications of the ACM*, 7(8):505–506, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Briggs:1965:ANH**

- [Bri65] William A. Briggs. Algorithm 248: Netflow [H]. *Communications of the ACM*, 8(2):103–104, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remarks [BW68c, HKV68].

**Bridger:1967:LEC**

- [Bri67] David A. Bridger. Letter to the Editor: Comments on “Levels of computer systems”. *Communications of the ACM*, 10(5):260, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brooks:1960:EOF**

- [Bro60a] F. P. Brooks. The execute operations — A fourth mode of instruction sequencing. *Communications of the ACM*, 3(3):168–170, March 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brown:1960:DCF**

- [Bro60b] Richard M. Brown. Decoding combinations of the first  $n$  integers taken  $k$  at a time. *Communications of the ACM*, 3(4):235–236, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Brons:1961:ATa**

- [Bro61a] K. A. Brons. Algorithm 37: Telescope 1. *Communications of the ACM*, 4(3):151, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brons:1961:ATb**

- [Bro61b] K. A. Brons. Algorithm 38: Telescope 2. *Communications of the ACM*, 4(3):151–152, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brown:1962:CAS**

- [Bro62a] P. J. Brown. Certification of Algorithm 35: Sieve. *Communications of the ACM*, 5(4):209, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brown:1962:CAP**

- [Bro62b] P. J. Brown. Certification of Algorithm 71: Permutation. *Communications of the ACM*, 5(4):209, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Browne:1962:AQM**

- [Bro62c] J. C. Browne. Algorithm 132: Quantum mechanical integrals over all Slater-type integrals. *Communications of the ACM*, 5(11):551–553, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bromberg:1963:SUN**

- [Bro63a] Howard Bromberg. Standards: USA National Activity Report to ISO/TC 97/Working Group E — Computers and Information Processing. Dated 27 September 1962. *Communications of the ACM*, 6(2):51, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bromberg:1963:SPL**

- [Bro63b] Howard Bromberg. Survey of programming languages and processors. *Communications of the ACM*, 6(3):93–98, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brown:1963:NPN**

- [Bro63c] Peter J. Brown. Note on the proof of the non-existence of a phrase structure grammar for ALGOL 60. *Communications of the ACM*, 6(3):105, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Broder:1964:FES**

- [Bro64a] Sol Broder. Final examination scheduling. *Communications of the ACM*, 7(8):494–498, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brooker:1964:PPS**

- [Bro64b] R. A. Brooker. A programming package for some general modes of arithmetic. *Communications of the ACM*, 7(2):119–127, February 1964. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Brown:1965:UCB**

- [Bro65a] Richard M. Brown. Use of a conditional base number system for encoding sequences of correlated characters. *Communications of the ACM*, 8(4):229–230, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brown:1965:OED**

- [Bro65b] W. S. Brown. An operating environment for dynamic-recursive computer programming systems. *Communications of the ACM*, 8(6):371–377, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Broder:1966:PTT**

- [Bro66] Sol Broder. On the problem of time table construction. *Communications of the ACM*, 9(4):257, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brooker:1967:NTB**

- [Bro67a] R. A. Brooker. A note: Top-to-bottom parsing rehabilitated? *Communications of the ACM*, 10(4):223–224, April 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brown:1967:ASS**

- [Bro67b] K. M. Brown. Algorithm 316: Solution of simultaneous non-linear equations. *Communications of the ACM*, 10(11):728–729, November

1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [Rad71].

**Brown:1967:MMP**

- [Bro67c] P. J. Brown. The ML/I macro processor. *Communications of the ACM*, 10(10):618–623, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Boles:1966:NDC**

- [BRW66] John A. Boles, Peter T. Rux, and Frederick W. Weingarten, Jr. NEBULA: a digital computer using a 20Mc glass delay line memory. *Communications of the ACM*, 9(7):503–508, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bryant:1966:LCS**

- [Bry66] Peter Bryant. Levels of computer systems. *Communications of the ACM*, 9(12):873–876, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Borsch-Supan:1960:ABF**

- [BS60] W. Börsch-Supan. Algorithm 21: Bessel function for a set of integer orders. *Communications of the ACM*, 3(11):600, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Borsch-Supan:1961:RFO**

- [BS61a] W. Börsch-Supan. Remark: On frequently occurring errors in Algol-60 programs. *Communications of the*



*ACM*, 4(4):181, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Brouse:1961:RSA**

- [BS61b] R. A. Brouse and W. Shooman. Research summaries: Advanced computers. *Communications of the ACM*, 4(4):194, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bauer:1962:ANM**

- [BS62] F. L. Bauer and J. Stoer. Algorithm 105: Newton Maehly. *Communications of the ACM*, 5(7):387–388, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Benson:1964:AMR**

- [BS64] Bill Benson and Dave Stevens. On avoiding matrix reversals between 7090 FORTRAN II and 7090 FORTRAN IV. *Communications of the ACM*, 7(4):242, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bernstein:1966:ISC**

- [BS66a] L. Bernstein and F. E. Slojowski. An information system for the coordination of program design. *Communications of the ACM*, 9(7):476–477, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bryant:1966:GCA**

- [BS66b] J. H. Bryant and P. Semple, Jr. GIS: its capabilities and application. *Communications of the ACM*, 9(7):477, July 1966. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Berman:1962:SCC**

- [BSS62] Richard Berman, Joseph Sharp, and Lawrence Sturges. Syntactical charts of COBOL 61. *Communications of the ACM*, 5(5):260, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Includes five foldout charts.

**Bemer:1961:DIT**

- [BSW61] R. W. Bemer, H. J. Smith, Jr., and F. A. Williams, Jr. Design of an improved transmission/data processing code. *Communications of the ACM*, 4(5):212–217, May 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bartlett:1969:NRF**

- [BSW69] K. A. Bartlett, R. A. Scantlebury, and P. T. Wilkinson. A note on reliable full-duplex transmission over half-duplex links. *Communications of the ACM*, 12(5):260–261, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Buchholz:1959:FFC**

- [Buc59] W. Buchholz. Fingers or fists? (the choice of decimal or binary representation). *Communications of the ACM*, 2(12):3–11, December 1959. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See letters [MSR60].



**Buchner:1962:CAR**

- [Buc62] Karl Heinz Buchner. Certification of Algorithm 60: Romberg integration. *Communications of the ACM*, 5(5):281, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bultheel:1974:RAR**

- [Bul74] Adhemar Bultheel. Remark on “Algorithm 450: Rosenbrock function minimization”. *Communications of the ACM*, 17(8):470–??, 1974. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [MM73, KK74].

**Burkhardt:1962:APC**

- [Bur62] Walter H. Burkhardt. Accuracy and precision with a character-addressable machine. *Communications of the ACM*, 5(12):575, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Burkhardt:1964:S**

- [Bur64] Walter H. Burkhardt. On semantics. *Communications of the ACM*, 7(5):297, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Burkhardt:1965:LES**

- [Bur65a] Walter H. Burkhardt. Letter to the Editor: syntax and generalization of ALGOL 60. *Communications of the ACM*, 8(5):261, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Letter to the editor.

**Burkhardt:1965:MSS**

- [Bur65b] Walter H. Burkhardt. Meta-language and syntax specification. *Communications of the ACM*, 8(5):304–305, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Burge:1966:RM**

- [Bur66] William H. Burge. A reprogramming machine. *Communications of the ACM*, 9(2):60–66, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bush:1961:SPU**

- [Bus61] Norman Bush. Statistical programs at the University of North Carolina. *Communications of the ACM*, 4(2):108–113, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Businger:1965:AF Ea**

- [Bus65a] P. A. Businger. Algorithm 253 [F2]: Eigenvalues of real symmetric matrix by the QR method. *Communications of the ACM*, 8(4):217–218, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Businger:1965:AF Eb**

- [Bus65b] P. A. Businger. Algorithm 254 [F2]: Eigenvalues and eigenvectors of a real symmetric matrix by the QR method. *Communications of the ACM*, 8(4):218–219, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Busam:1967:ACS**

- [Bus67a] Vincent A. Busam. An algorithm for class scheduling with section preference. *Communications of the ACM*, 10(9):567–569, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Businger:1967:LEF**

- [Bus67b] Peter A. Businger. Letter to the Editor: FORTRAN subroutines for scalar products. *Communications of the ACM*, 10(5):260, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Butler:1966:LRC**

- [But66] Roger V. Butler. The Langley remote computing terminal system: implementation and first year's operation. *Communications of the ACM*, 9(7):477–478, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Britton:1963:CPA**

- [BW63] Catherine Britton and I. F. Wagner. A computer program for analysis of variance for a 2-level factorial design. *Communications of the ACM*, 6(6):308–309, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Barton:1964:RA**

- [BW64] Stephen P. Barton and John F. Wagner. Remark on Algorithm 123. *Communications of the ACM*, 7(3):

145–148, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Braden:1968:IBS**

- [BW68a] Helen V. Braden and William A. Wulf. The implementation of a BASIC system in a multiprogramming environment. *Communications of the ACM*, 11(10):688–692, October 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bray:1968:AN**

- [BW68b] T. A. Bray and C. Witzgall. Algorithm 336: Netflow. *Communications of the ACM*, 11(9):631–632, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Bray:1968:RAH**

- [BW68c] T. A. Bray and C. Witzgall. Remark on Algorithm 248 [H]: Netflow. *Communications of the ACM*, 11(9):633, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Bri65, HKV68].

**Byrne:1967:PPR**

- [Byr67] George D. Byrne. Parameters for pseudo Runge-Kutta methods. *Communications of the ACM*, 10(2):102–104, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cadwell:1963:RPG**

- [Cad63] J. H. Cadwell. A recursive program for the general  $n$ -dimensional integral. *Communications of the ACM*,



- 6(1):35–36, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Caf61a] John Caffrey. Algorithm 66: INVRS. *Communications of the ACM*, 4(7):322, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Caf61b] John Caffrey. Algorithm 67: CRAM. *Communications of the ACM*, 4(7):322, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Caf62] John Caffrey. Certification of Algorithm 66: Invs. *Communications of the ACM*, 5(6):348, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Caf63] John Caffrey. Pracniques: Another test matrix for determinants and inverses. *Communications of the ACM*, 6(6):310, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Cai66] George L. Cain, Jr. A method for locating zeros of complex functions. *Communications of the ACM*, 9(4):305–306, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Cal61] Tom Caldwell. On finding minimum routes in a network with turn penalties. *Communications of the ACM*, 4(2):107–108, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Cal67a] Peter Calingaert. Corrigenda: computer systems. *Communications of the ACM*, 10(4):224, April 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Cal67b] Peter Calingaert. System performance evaluation: Survey and appraisal. *Communications of the ACM*, 10(1):12–18, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Can63] H. N. Cantrell. Incompressible flow network calculations. *Communications of the ACM*, 6(6):325–328, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Can68] Richard G. Canning. Goals for 1970. *Communications of the ACM*, 11(4):220, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Caffrey:1961:AI****Caldwell:1961:FMR****Caffrey:1961:AC****Calingaert:1967:CCS****Caffrey:1962:CAI****Calingaert:1967:SPE****Caffrey:1963:PAT****Cantrell:1963:IFN****Cain:1966:MLZ****Canning:1968:G**



**Cannon:1969:CGT**

- [Can69] John J. Cannon. Computers in group theory: A survey. *Communications of the ACM*, 12(1):3–12, January 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Carlson:1962:CKT**

- [Car62] Walter M. Carlson. Computers—the key to total systems control: an industrial viewpoint. *Communications of the ACM*, 5(3):172–173, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**CaraccioloDiForino:1963:SRS**

- [Car63] Alfonso Caracciolo Di Forino. Some remarks on the syntax of symbolic programming languages. *Communications of the ACM*, 6(8):456–460, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Carr:1964:NW**

- [Car64] John W. Carr, III. Norbert Wiener. *Communications of the ACM*, 7(8):462, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Caracciolo:1966:SPR**

- [Car66a] A. Caracciolo. Some preliminary remarks on theoretical pragmatics. *Communications of the ACM*, 9(3):226–227, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Carlson:1966:DCE**

- [Car66b] Jack W. Carlson. On determining C.S. education programs. *Communications of the ACM*, 9(3):135, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Carp:1966:SWW**

- [Car66c] Jerome D. Carp. Software—where we are today, and trend. *Communications of the ACM*, 9(5):390–393, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Carmer:1967:PTM**

- [Car67] S. G. Carmer. Programming the tabular method of analysis of variance for factorial experiments. *Communications of the ACM*, 10(2):109–110, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Carlson:1969:LAV**

- [Car69] Walter M. Carlson. Letter from the ACM Vice-President: “There is a tide in the affairs of men...”. *Communications of the ACM*, 12(10):537, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cavin:1964:RAX**

- [Cav64] D. K. Cavin. Remark on Algorithm 162: XY move plotting. *Communications of the ACM*, 7(8):482, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Casale:1960:LEM**

- [CBG60] Charles T. Casale, II, C. R. Burgess, and Fred Gruenberger. Letter to the Editor: More techniques for counting ones. *Communications of the ACM*, 3(10):A9–A10, 529, October 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cyvin:1964:AGF**

- [CC64] S. J. Cyvin and B. N. Cyvin. Algorithm 225: Gamma function with controlled accuracy. *Communications of the ACM*, 7(5):295, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Chu:1966:EPD**

- [CC66] J. T. Chu and J. C. Chueh. Error probability in decision functions for character recognition. *Communications of the ACM*, 9(7):482, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Callahan:1967:DBA**

- [CC67] Michael D. Callahan and Anson E. Chapman. Description of basic algorithm DETAB/65 preprocessor. *Communications of the ACM*, 10(7):441–446, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cheatham:1961:CEC**

- [CCL61] T. E. Cheatham, Jr., G. O. Collins, Jr., and G. F. Leonard. CL-I, an environment for a compiler. *Communications of the ACM*, 4(1):23–28,

January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Calvery:1966:MSM**

- [CCMP66] A. L. Calvery, W. G. Castner, C. I. MacDonald, and R. E. Peerenboom. The MECCA system, a modified list processing application for library collections. *Communications of the ACM*, 9(7):483, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Canter:1965:UUP**

- [CD65] J. D. Canter and C. E. Donaghey. UPLIFTS—University of Pittsburgh linear file tandem system. *Communications of the ACM*, 8(9):579–582, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Conway:1965:CCL**

- [CDMW65] R. W. Conway, J. J. Delfausse, W. L. Maxwell, and W. E. Walker. CLP — the Cornell List Processor. *Communications of the ACM*, 8(4):215–216, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cameron:1967:DCP**

- [CEL67] Scott H. Cameron, Duncan Ewing, and Michael Liveright. DIALOG: a conversational programming system with a graphical orientation. *Communications of the ACM*, 10(6):349–357, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



- [CF66] Harold S. Corbin and Werner L. Frank. Display-oriented computer usage system. *Communications of the ACM*, 9(7):484, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [CH64] I. Clausen and L. Hansson. Certification of Algorithm 181: Complementary error function—large  $X$ . *Communications of the ACM*, 7(12):702, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [CF69a] Stephen M. Chase and Lloyd D. Fosdick. Algorithm 353: Filon quadrature [D1]. *Communications of the ACM*, 12(8):457–458, August 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [CH64a] R. S. Cormack and I. D. Hill. Remark on “Algorithm 346:  $F$ -Test Probabilities”. *ACM Transactions on Mathematical Software*, 14(3):288–289, September 1988. CODEN ACMSCU. ISSN 0098-3500. See [Mor69a].
- [CF69b] Stephen M. Chase and Lloyd D. Fosdick. An algorithm for Filon quadrature. *Communications of the ACM*, 12(8):453–457, August 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [CG64] J. Csima and C. C. Gotlieb. Tests on a computer method for constructing school timetables. *Communications of the ACM*, 7(3):160–163, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See letters [Dun65a, Ano66b].
- [CH61] J. W. Carr III and J. W. Hanson. Two subroutines for symbol manipulation with an algebraic compiler. *Communications of the ACM*, 4(2):102–103, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Cha61a] Ned Chapin. Symbolic analysis methods for information systems. *Communications of the ACM*, 4(2):114, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Cha61b] M. A. Chapple. Letter to the Editor: inversion of power series. *Communications of the ACM*, 4(11):503, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Cha67a] Ned Chapin. Parsing of decision tables. *Communications of the ACM*, 10(8):507–511, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Charmonman:1967:EM**

- [Cha67b] S. Charmonman. Eigenvectors of a  $2n \times 2n$  matrix. *Communications of the ACM*, 10(12):800–801, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Chartres:1967:APNa**

- [Cha67c] B. A. Chartres. Algorithm 310: Prime number generator 1. *Communications of the ACM*, 10(9):569, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Chartres:1967:APNb**

- [Cha67d] B. A. Chartres. Algorithm 311: Prime number generator 2. *Communications of the ACM*, 10(9):570, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Chartres:1967:RAA**

- [Cha67e] B. A. Chartres. Remarks on: Algorithm 35 [A1]; Algorithm 310 [A1]: Prime number generator 1; Algorithm 311 [A1]: Prime number generator 2. *Communications of the ACM*, 10(9):570, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cheatham:1963:PL**

- [Che63] T. E. Cheatham, Jr. Programming languages. *Communications of the ACM*, 6(7):391–395, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cheatham:1964:ENS**

- [Che64] T. E. Cheatham, Jr. Editor's note: A successor to ALGOL? *Communications of the ACM*, 7(7):422, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cheatham:1966:CT**

- [Che66] Thomas E. Cheatham. Compiling techniques. *Communications of the ACM*, 9(7):481, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Conte:1965:UPC**

- [CHK<sup>+</sup>65] S. D. Conte, John W. Hamblen, Thomas A. Keenan, William B. Kehl, Silvio O. Navarro, Werner C. Rheinboldt, Earl J. Schweppe, David M. Young, Jr., and William F. Atchison. An undergraduate program in computer science — preliminary recommendations. A report from the ACM Curriculum Committee on Computer Science. *Communications of the ACM*, 8(9):543–552, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Christensen:1966:IAL**

- [Chr66] Carlos Christensen. On the implementation of AMBIT, a language for symbol manipulation. *Communications of the ACM*, 9(8):570–573, August 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Chu:1965:ALC**

- [Chu65] Yaohan Chu. An ALGOL-like computer design language. *Communications of the ACM*, 8(10):607–615, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Carmody:1966:ADM**

- [CJ66] Basil T. Carmody and Paul E. Jones, Jr. Automatic derivation of microsentences. *Communications of the ACM*, 9(6):443–449, June 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cantrell:1961:LST**

- [CKK61] H. N. Cantrell, J. King, and F. E. H. King. Logic-structure tables. *Communications of the ACM*, 4(6):272–275, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Clark:1963:AOP**

- [CKP63] R. E. Clark, R. N. Kubik, and L. P. Phillips. Algorithm 164: Orthogonal polynomial least squares surface fit. *Communications of the ACM*, 6(4):162–163, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cox:1961:NMP**

- [CL61] Albert G. Cox and H. A. Luther. A note on multiple precision arithmetic. *Communications of the ACM*, 4(8):353, August 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cottafava:1969:ACM**

- [CL69] G. Cottafava and G. Le Moli. Automatic contour map. *Communications of the ACM*, 12(7):386–391, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Clarke:1960:ABFa**

- [Cla60a] Dorothea S. Clarke. Algorithm 5: Bessel function  $I$  series expansion. *Communications of the ACM*, 3(4):240, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Clarke:1960:ABFb**

- [Cla60b] Dorothea S. Clarke. Algorithm 6: Bessel function  $I$  asymptotic expansion. *Communications of the ACM*, 3(4):240, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Claussen:1960:AEA**

- [Cla60c] Robert Claussen. Algorithm 7: Euclidian algorithm. *Communications of the ACM*, 3(4):240, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Clark:1961:MC**

- [Cla61] Charles E. Clark. Monte Carlo. *Communications of the ACM*, 4(3):141, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Clark:1963:CAD**

- [Cla63] Eva S. Clark. Certification of Algorithm 79: Difference expression co-



efficients. *Communications of the ACM*, 6(3):104, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Clampett:1964:RBS**

- [Cla64] Harry A. Clampett, Jr. Randomized binary searching with tree structures. *Communications of the ACM*, 7(3):163–165, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Clark:1966:ASS**

- [Cla66a] Ellen R. Clark. On the automatic simplification of source-language programs. *Communications of the ACM*, 9(7):480–481, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Clasen:1966:TAT**

- [Cla66b] R. J. Clasen. Techniques for automatic tolerance control in linear programming. *Communications of the ACM*, 9(11):802–803, November 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Clark:1967:ASS**

- [Cla67] Ellen R. Clark. On the automatic simplification of source-language programs. *Communications of the ACM*, 10(3):160–165, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Clark:1968:LEE**

- [Cla68] S. R. Clark. Letter to the Editor: Endorsing the Illinois post mortem dump. *Communications of the ACM*, 11(3):150, March 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Claringbold:1969:ARU**

- [Cla69a] P. J. Claringbold. Algorithm 366: Regression using certain direct product matrices [G2]. *Communications of the ACM*, 12(12):687–688, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Claringbold:1969:AAV**

- [Cla69b] P. J. Claringbold. Algorithm 367: Analysis of variance for balanced experiments [G2]. *Communications of the ACM*, 12(12):688–691, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Clendenin:1961:NCR**

- [Cle61] W. W. Clendenin. Notes on the construction of rational approximations for the error function and for similar functions. *Communications of the ACM*, 4(8):354–355, August 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cleary:1966:FTS**

- [Cle66] J. G. Cleary. A Fortran technique for simplifying input to report generators. *Communications of the ACM*, 9(6):441–442, June 1966. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Clemm:1969:ACV**

- [Cle69] Donald S. Clemm. Algorithm 352: Characteristic values and associated solutions of Mathieu's differential equation [S22]. *Communications of the ACM*, 12(7):399–407 (or 399–406??), July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [Fri72].

**Climenson:1963:RRC**

- [Cli63] W. D. Climenson. RECOL—a retrieval command language. *Communications of the ACM*, 6(3):117–122, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cline:1964:CMT**

- [Cli64] Randall E. Cline. A class of matrices to test inversion procedures. *Communications of the ACM*, 7(12):724–725, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Climpel:1969:AMS**

- [Cli69] R. R. Climpel. Algorithm 348: Matrix scaling by integer programming. *Communications of the ACM*, 12(4):212–213, April 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Conway:1963:CCC**

- [CM63] R. W. Conway and W. L. Maxwell. CORC—the Cornell computing language. *Communications*

*of the ACM*, 6(6):317–321, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Conway:1967:TCT**

- [CM67a] R. W. Conway and H. L. Morgan. Tele-CUPL: a telephone time sharing system. *Communications of the ACM*, 10(9):538–542, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Coveyou:1967:FAU**

- [CM67b] R. R. Coveyou and R. D. MacPherson. Fourier analysis of uniform random number generators. *Journal of the ACM*, 14(1):100–119, January 1967. CODEN JACOA. ISSN 0004-5411.

**Cobb:1969:CAS**

- [Cob69] S. M. Cobb. Certification of Algorithm 47 [S16]: Associated Legendre functions of the first kind for real or imaginary arguments. *Communications of the ACM*, 12(11):635–636, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Codd:1960:MSIa**

- [Cod60a] E. F. Codd. Multiprogram scheduling. Parts 1 and 2. Introduction and theory. *Communications of the ACM*, 3(6):347–350, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Codd:1960:MSIb**

- [Cod60b] E. F. Codd. Multiprogram scheduling. Parts 3 and 4. Scheduling algorithm and external constraints. *Communications of the ACM*, 3(7):413–418, July 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cody:1964:DPS**

- [Cod64] W. J. Cody. Double-precision square root for the CDC-3600. *Communications of the ACM*, 7(12):715–718, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cody:1967:LEA**

- [Cod67] William J. Cody, Jr. Letter to the Editor: Another aspect of economical polynomials. *Communications of the ACM*, 10(9):531, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Fik67b].

**Cohen:1961:AMI**

- [Coh61a] Donald Cohen. Algorithm 58: Matrix inversion. *Communications of the ACM*, 4(5):236, May 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cohen:1961:SES**

- [Coh61b] Leo J. Cohen. Stochastic evaluation of a static storage allocation. *Communications of the ACM*, 4(10):460–464, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cohen:1962:CAN**

- [Coh62] Kalman J. Cohen. Certification of Algorithm 30: Numerical solution of the polynomial equation. *Communications of the ACM*, 5(1):50, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cohn:1966:INI**

- [Coh66] Charles Erwin Cohn. Incorporation of nonstandard input/output devices into FORTRAN systems. *Communications of the ACM*, 9(5):343–344, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cohen:1967:UFS**

- [Coh67] Jacques Cohen. A use of fast and slow memories in list-processing languages. *Communications of the ACM*, 10(2):82–86, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collins:1960:MOE**

- [Col60] George E. Collins. A method for overlapping and erasure of lists. *Communications of the ACM*, 3(12):655–657, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collinge:1961:AGF**

- [Col61a] Robert M. Collinge. Algorithm 31: Gamma function. *Communications of the ACM*, 4(2):105, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Collinge:1961:RAR**

- [Col61b] Robert M. Collinge. Remark on Algorithm 25: Real zeros of an arbitrary function. *Communications of the ACM*, 4(3):154, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collins:1961:EAS**

- [Col61c] George O. Collins, Jr. Experience in automatic storage allocation. *Communications of the ACM*, 4(10):436–440, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collinson:1962:AMSa**

- [Col62a] D. M. Collinson. Algorithm 117: Magic square (even order). *Communications of the ACM*, 5(8):435, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collinson:1962:AMSB**

- [Col62b] D. M. Collinson. Algorithm 118: Magic square (odd order). *Communications of the ACM*, 5(8):436, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collinson:1962:ATM**

- [Col62c] D. M. Collinson. Algorithm 148: Term of magic square. *Communications of the ACM*, 5(12):605, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collison:1962:AMSa**

- [Col62d] D. M. Collison. Algorithm 117: Magic square (even order). *Communications of the ACM*, 5(8):435, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collison:1962:AMSB**

- [Col62e] D. M. Collison. Algorithm 118: Magic square (odd order). *Communications of the ACM*, 5(8):436, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collison:1962:ATM**

- [Col62f] D. M. Collison. Algorithm 148: Term of magic square. *Communications of the ACM*, 5(12):605, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collison:1962:CAM**

- [Col62g] D. M. Collison. Certification of Algorithm 117 and 118: Magic square (odd and, even orders). *Communications of the ACM*, 5(8):440, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collison:1962:CAC**

- [Col62h] D. M. Collison. Certification of Algorithm 72: Composition generator. *Communications of the ACM*, 5(8):439, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Collison:1962:CAPa**

- [Col62i] D. M. Collison. Certification of Algorithm 86: Permute. *Communications of the ACM*, 5(8):440, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collison:1962:CAPb**

- [Col62j] D. M. Collison. Certification of Algorithm 87: Permutation generator. *Communications of the ACM*, 5(8):440, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collison:1962:RAR**

- [Col62k] D. M. Collison. Remark on Algorithm 78: Rational roots of polynomials with integer coefficients. *Communications of the ACM*, 5(8):440, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Colker:1963:AEP**

- [Col63a] A. Colker. Algorithm 184: Erlang probability for curve fitting. *Communications of the ACM*, 6(7):386, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Colker:1963:ANP**

- [Col63b] A. Colker. Algorithm 185: Normal probability for curve fitting. *Communications of the ACM*, 6(7):386, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collins:1963:CAC**

- [Col63c] David H. Collins. Certification of Algorithm 161: Combinatorial of  $M$  things taken one at a time, two at a time, up to  $N$  at time. *Communications of the ACM*, 6(10):619, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collens:1964:ALC**

- [Col64a] David S. Collens. Algorithm 243: Logarithm of a complex number[B3] rewrite of Algorithm 48. *Communications of the ACM*, 7(11):660, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collens:1964:RRA**

- [Col64b] David S. Collens. Remark on remarks on Algorithm 48: Logarithm of a complex number. *Communications of the ACM*, 7(8):485, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collison:1965:LEC**

- [Col65] D. M. Collison. Letter to the Editor: calculating  $E$  on a small computer. *Communications of the ACM*, 8(1):71–72, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cole:1966:SCC**

- [Col66a] L. M. Cole, Jr. A short critique on Communications' contents page. *Communications of the ACM*, 9(7):485, July 1966. CODEN CACMA2.



ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collins:1966:PSP**

- [Col66b] G. E. Collins. PM, A system for polynomial manipulation. *Communications of the ACM*, 9(8): 578–589, August 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Collins:1969:LEC**

- [Col69] George E. Collins. Letter to the Editor: comment on a paper by Ku and Adler. *Communications of the ACM*, 12(6):302–303, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Coleman:1978:RSN**

- [Col78] John P. Coleman. Remark on “Algorithm 49: Spherical Neumann Function”. *ACM Transactions on Mathematical Software*, 4(3):295, September 1978. CODEN ACMSCU. ISSN 0098-3500. See [Her61a].

**Comfort:1964:MLI**

- [Com64a] W. T. Comfort. Multiword list items. *Communications of the ACM*, 7(6):357–362, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Comstock:1964:NMB**

- [Com64b] D. R. Comstock. A note on multiplying Boolean matrices II. *Communications of the ACM*, 7(1):13, January 1964. CODEN CACMA2.

ISSN 0001-0782 (print), 1557-7317 (electronic).

**Conway:1961:LEA**

- [Con61] Melvin E. Conway. Letter to the Editor: ALGOL 60 comment. *Communications of the ACM*, 4(10):465, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Conger:1962:CAM**

- [Con62] Richard A. Conger. Certification of Algorithm 58: Matrix inversion. *Communications of the ACM*, 5(6):347, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Conway:1963:DST**

- [Con63] Melvin E. Conway. Design of a separable transition-diagram compiler. *Communications of the ACM*, 6(7):396–408, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Conte:1966:NA**

- [Con66] Samuel D. Conte. Numerical analysis. *Communications of the ACM*, 9(7):475, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cooke:1963:TFM**

- [Coo63] William S. Cooke. A tape file merge pattern generator. *Communications of the ACM*, 6(5):227–230, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Cooper:1966:CPT**

- [Coo66] Leon Cooper. Comments on Professor Tewarson's letter. *Communications of the ACM*, 9(4):241, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cooper:1967:UCM**

- [Coo67a] B. E. Cooper. A unifying computational method for the analysis of complete factorial experiments. *Communications of the ACM*, 10(1):27–34, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cooper:1967:BJR**

- [Coo67b] David C. Cooper. Böhm and Jacopini's reduction of flow charts. *Communications of the ACM*, 10(8):463, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Corey:1967:LEW**

- [Cor67] Lewis C. Corey. Letter to the Editor: What level for ACM publications? *Communications of the ACM*, 10(5):259, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Counts:1962:AGMa**

- [Cou62a] Jay W. Counts. Algorithm 107: Gauss's method. *Communications of the ACM*, 5(7):388, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Counts:1962:AGMb**

- [Cou62b] Jay W. Counts. Algorithm 126: Gauss' method. *Communications of the ACM*, 5(10):511, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cox:2007:REM**

- [Cox07] Russ Cox. Regular expression matching can be simple and fast. Report, swtch.com, Cambridge, MA, USA, January 2007. URL <http://swtch.com/~rsc/regex/regex1.html>. See also [Tho68, KP99, Cox09, Cox10, Cox12].

**Cox:2009:REM**

- [Cox09] Russ Cox. Regular expression matching: the virtual machine approach. Report, swtch.com, Cambridge, MA, USA, December 2009. URL <http://swtch.com/~rsc/regex/regex2.html>. See also [Tho68, KP99, Cox07, Cox10, Cox12].

**Cox:2010:REM**

- [Cox10] Russ Cox. Regular expression matching in the wild. Report, swtch.com, Cambridge, MA, USA, March 2010. URL <http://swtch.com/~rsc/regex/regex3.html>. See also [Tho68, KP99, Cox07, Cox09, Cox12].

**Cox:2012:REM**

- [Cox12] Russ Cox. Regular expression matching with a trigram index, or how Google Code Search worked. Report, swtch.com, Cambridge, MA, USA, January 2012. URL



<http://swtch.com/~rsc/regexp/regexp4.html>. See also [Tho68, KP99, Cox07, Cox09, Cox10].

**Clarkson:1961:DMI**

- [CP61] William K. Clarkson and Benjamin M. Prince. A divisionless method of integer conversion. *Communications of the ACM*, 4(7):315–316, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cody:1967:NCA**

- [CR67] W. J. Cody and Anthony Ralston. A note on computing approximations to the exponential function. *Communications of the ACM*, 10(1):53–55, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Crosby:1965:NAO**

- [Cro65] William S. Crosby. Note on an ASCII-octal code table. *Communications of the ACM*, 8(10):616, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Curtz:1960:CPM**

- [CRS60] T. B. Curtz, J. F. Riordan, and M. Spohn. A comparison of 650 programming methods. *Communications of the ACM*, 3(12):663–664, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Coveyou:1961:AP**

- [CS61] R. R. Coveyou and J. G. Sullivan. Algorithm 71: Permutation. *Communications of the ACM*, 4

(11):497, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Colilla:1962:ISP**

- [CS62] Robert A. Colilla and Burnett H. Sams. Information structures for processing and retrieving. *Communications of the ACM*, 5(1):11–16, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Chu:1963:SIP**

- [CS63a] Wen-Hwa Chu and Donald R. Saathoff. A semi-iterative process for evaluating arctangents. *Communications of the ACM*, 6(9):516–517, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Conway:1963:ADA**

- [CS63b] Melvin E. Conway and Joseph Speroni. Arithmetizing declarations: an application to COBOL. *Communications of the ACM*, 6(1):24–27, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cramer:1966:HOI**

- [CS66] Martin L. Cramer and Jon C. Strauss. A hybrid-oriented interactive language. *Communications of the ACM*, 9(7):483, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Crawford:1962:ARE**

- [CT62] Martin Crawford and Robert Techo. Algorithm 123: Real error



function,  $\text{ERF}(x)$ . *Communications of the ACM*, 5(9):483, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cundiff:1962:AEA**

- [Cun62a] John L. Cundiff. Algorithm 88: Evaluation of asymptotic expression for the Fresnel sine and cosine integrals. *Communications of the ACM*, 5(5):280, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cundiff:1962:AEFa**

- [Cun62b] John L. Cundiff. Algorithm 89: Evaluation of the Fresnel sine integral. *Communications of the ACM*, 5(5):280, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cundiff:1962:AEFb**

- [Cun62c] John L. Cundiff. Algorithm 90: Evaluation of the Fresnel cosine integral. *Communications of the ACM*, 5(5):281, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cunningham:1962:WC**

- [Cun62d] Joseph F. Cunningham. Why COBOL? *Communications of the ACM*, 5(5):236, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cunningham:1963:C**

- [Cun63] Joseph F. Cunningham. COBOL. *Communications of the ACM*, 6(3):79–82, March 1963. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Carlson:1963:UDF**

- [CV63] B. G. Carlson and E. A. Voorhees. Use of the disk file on stretch. *Communications of the ACM*, 6(10):631–634, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Coffman:1968:FED**

- [CV68] E. G. Coffman and L. C. Varian. Further experimental data on the behavior of programs in a paging environment. *Communications of the ACM*, 11(7):471–474, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cheatham:1962:TRR**

- [CW62] T. E. Cheatham, Jr. and S. Warshall. Translation of retrieval requests couched in a “semi-formal” English-like language. *Communications of the ACM*, 5(1):34–39, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cohen:1965:AAL**

- [CW65] Kenneth Cohen and J. H. Wegstein. AXLE: An axiomatic language for string transformations. *Communications of the ACM*, 8(11):657–661, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Carr:1966:NMS**

- [CW66a] John W. Carr III and Jerome Welland. A nonrecursive method



of syntax specification. *Communications of the ACM*, 9(4):267–269, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Coffman:1966:IST**

- [CW66b] E. G. Coffman, Jr. and R. C. Wood. Interarrival statistics for time sharing systems. *Communications of the ACM*, 9(7):500–503, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cyvin:1964:AND**

- [Cyv64a] S. J. Cyvin. Algorithm 226: Normal distribution function. *Communications of the ACM*, 7(5):295, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Cyvin:1964:ACP**

- [Cyv64b] S. J. Cyvin. Algorithm 227: Chebyshev polynomial coefficients. *Communications of the ACM*, 7(5):295, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Damerau:1964:TCD**

- [Dam64] Fred J. Damerau. A technique for computer detection and correction of spelling errors. *Communications of the ACM*, 7(3):171–176, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Davidson:1962:RMN**

- [Dav62] Leon Davidson. Retrieval of misspelled names in an airline pas-

senger record system. *Communications of the ACM*, 5(3):169–171, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Davids:1966:LED**

- [Dav66] Norman Davids. Letter to the Editor: Direct methods of computer analysis. *Communications of the ACM*, 9(5):323, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Davies:1976:RAR**

- [Dav76] Alan M. Davies. Remark on “Algorithm 450: Rosenbrock Function Minimization [E4]”. *ACM Transactions on Mathematical Software*, 2(3):300–301, September 1976. CODEN ACMSCU. ISSN 0098-3500. See [MM73].

**Dayhoff:1963:CMP**

- [Day63] M. O. Dayhoff. A contour-map program for X-ray crystallography. *Communications of the ACM*, 6(10):620–622, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Day:1965:NSP**

- [Day65] James T. Day. On the numerical solution of an  $N$ -point boundary value problem for linear ordinary differential equations. *Communications of the ACM*, 8(4):235–236, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Danielson:1963:CPE**

- [DB63] Wayne A. Danielson and Bruce Briggs. A computer program for editing the news. *Communications of the ACM*, 6(8):487–490, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Davids:1964:CAM**

- [DB64] Norman Davids and Robert L. Berger. A computer analysis method for thermal diffusion in biochemical systems. *Communications of the ACM*, 7(9):547–551, September 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**deBakker:1966:A**

- [dB66] J. W. de Bakker. On AXLE. *Communications of the ACM*, 9(4):242, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**deBruijn:1967:ACP**

- [dB67] N. G. de Bruijn. Additional comments on a problem in concurrent programming control. *Communications of the ACM*, 10(3):137–138, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dewar:1969:PSA**

- [DBT69] Hamish Dewar, Paul Bratley, and James Peter Thorne. A program for the syntactic analysis of English sentences. *Communications of the ACM*, 12(8):476–479, August 1969. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic).

**Day:1964:NSB**

- [DC64] James T. Day and George W. Collins, II. On the numerical solution of boundary value problems for linear ordinary differential equations. *Communications of the ACM*, 7(1):22–23, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Daley:1968:VMP**

- [DD68a] Robert C. Daley and Jack B. Dennis. Virtual memory, processes, and sharing in MULTICS. *Communications of the ACM*, 11(5):306–312, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dietmeyer:1968:GPI**

- [DD68b] D. L. Dietmeyer and J. R. Duley. Generating prime implicants via ternary encoding and decimal arithmetic. *Communications of the ACM*, 11(7):520–523, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**DeLaBriandais:1961:LEO**

- [De 61] Rene De La Briandais. Letter to the Editor: an open letter to Bob Bemer. *Communications of the ACM*, 4(3):A12, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See response [Bem61].



**DeMatteis:1967:LEI**

- [De 67] Artenio De Matteis. Letter to the Editor: Improvements based on computed errors. *Communications of the ACM*, 10(11):683, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**DeVogelaere:1968:ASB**

- [De 68a] R. De Vogelaere. Algorithm 335: A set of basic input-output procedures. *Communications of the ACM*, 11(8):567–573, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**DeVogelaere:1968:RAD**

- [De 68b] R. De Vogelaere. Remark on Algorithm 178: Direct search. *Communications of the ACM*, 11(7):498, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**DeMorgan:1973:RAE**

- [De 73] Richard M. De Morgan. Remark on “Algorithm 357: An Efficient Prime Number Generator [A1]”. *Communications of the ACM*, 16(8):489, August 1973. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Sin69d].

**deBruijn:1967:LEA**

- [deB67] N. G. deBruijn. Letter to the editor: Additional comments on a problem in concurrent programming control. *Communications of the ACM*, 10(3):137–138, March 1967. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Deily:1966:AEC**

- [Dei66a] Gerhard R. Deily. Algorithm 275: Exponential curve fit. *Communications of the ACM*, 9(2):85, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Deily:1966:ACE**

- [Dei66b] Gerhard R. Deily. Algorithm 276: Constrained exponential curve fit. *Communications of the ACM*, 9(2):85–86, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dellert:1965:UMT**

- [Del65] George T. Dellert, Jr. A use of macros in translation of symbolic assembly language of one computer to another. *Communications of the ACM*, 8(12):742–748, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Originally appeared in ACM Reprogramming Conference, Princeton, Jun 1965.

**Dennis:1964:MCF**

- [Den64] Jack B. Dennis. A multiuser computation facility for education and research. *Communications of the ACM*, 7(9):521–529, September 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Denil:1966:LMC**

- [Den66] N. G. Denil. A language and model for computer design. *Communica-*



tions of the ACM, 9(7):484, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Denning:1968:OSS**

- [Den68a] Peter J. Denning. Operating systems: A statistical model for console behavior in multiuser computers. *Communications of the ACM*, 11(9):605–612, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Denning:1968:WSM**

- [Den68b] Peter J. Denning. The working set model for program behavior. *Communications of the ACM*, 11(5):323–333, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dennis:1968:PPC**

- [Den68c] Jack B. Dennis. A position paper on computing and communications. *Communications of the ACM*, 11(5):370–377, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**DesJardins:1960:TMW**

- [Des60] Paul Des Jardins. Two methods for word conversion on the IBM 709: method 2. *Communications of the ACM*, 3(12):658, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**DesJardins:1961:LEW**

- [Des61] Paul E. Des Jardins. Letters to the Editor: Word inversion. *Com-*

*munications of the ACM*, 4(3):A13, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dettman:1960:LEH**

- [Det60] M. D. Dettman. Letters to the Editor: The Honeywell Argus system. *Communications of the ACM*, 3(4):A13, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Deutsch:1960:LE**

- [Deu60] M. L. Deutsch. Letters to the Editor. *Communications of the ACM*, 3(1):A6–A7, January 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Deuel:1966:SMF**

- [Deu66] Phillip Deuel. On a storage mapping function for data structures. *Communications of the ACM*, 9(5):344–347, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**DeVeber:1968:LEC**

- [DeV68] Jeffrey L. DeVeber. Letter to the Editor: correction's to Stone's compiler procedures. *Communications of the ACM*, 11(8):538, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dickson:1960:DRI**

- [DF60] J. C. Dickson and F. P. Frederick. A decision rule for improved efficiency in solving linear programming problems with the simplex algorithm. *Communications of*



*the ACM*, 3(9):509–512, September 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**diForino:1963:SRS**

- [dF63] Alfonso Caracciolo di Forino. Some remarks on the syntax of symbolic programming languages. *Communications of the ACM*, 6(8):456–460, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dwyer:1967:MST**

- [DG67] P. S. Dwyer and B. A. Galler. A method for the solution of transportation problems with tall matrices. *Communications of the ACM*, 10(4):231–234, April 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dugan:1966:SUH**

- [DGMS66] J. A. Dugan, R. S. Green, J. Minker, and W. E. Shindle. A study of the utility of a hybrid associative processor. *Communications of the ACM*, 9(7):481, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dahm:1967:SOR**

- [DGP67] D. M. Dahm, T. H. Gerbstadt, and M. M. Pacelli. A system organization for resource allocation. *Communications of the ACM*, 10(12):772–779, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dyadkin:1997:FEL**

- [DH97a] Iosif G. Dyadkin and Kenneth G. Hamilton. A family of enhanced Lehmer random number generators, with hyperplane suppression, and direct support for certain physical applications. *Computer Physics Communications*, 107(1–3):258–280, December 22, 1997. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL <http://www.cpc.cs.qub.ac.uk/cpc/>; [http://www.cpc.cs.qub.ac.uk/cpc/cgi-bin/list\\_summary.pl?CatNumber=ADGW](http://www.cpc.cs.qub.ac.uk/cpc/cgi-bin/list_summary.pl?CatNumber=ADGW); <http://www.sciencedirect.com/science/article/pii/S001046559700101X>.

**Dyadkin:1997:SBM**

- [DH97b] Iosif G. Dyadkin and Kenneth G. Hamilton. A study of 64-bit multipliers for Lehmer pseudorandom number generators. *Computer Physics Communications*, 103(2–3):103–130, July 1997. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0010465597000520>.

**Dyadkin:2000:SBM**

- [DH00] Iosif G. Dyadkin and Kenneth G. Hamilton. A study of 128-bit multipliers for congruential pseudorandom number generators. *Computer Physics Communications*, 125(1–3):239–258, March 2000. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL <http://cpc.cs.qub.ac.uk/summaries/ADLK>; <http://www.elsevier.com/cej-ng/10/15/40/55/25/42/abstract.html>;



<http://www.sciencedirect.com/science/article/pii/S0010465599004671>. ■

**Dewar:1969:IPL**

- [DHW69] Robert B. K. Dewar, Ronald R. Hochsprung, and William S. Worley. The IITRAN programming language. *Communications of the ACM*, 12(10):569–575, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dial:1969:ASP**

- [Dia69] Robert B. Dial. Algorithm 360: Shortest-path forest with topological ordering [H]. *Communications of the ACM*, 12(11):632–633, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dickie:1962:LEM**

- [Dic62] R. E. Dickie. Letter to the Editor: More on an IF statement for bcd comparison. *Communications of the ACM*, 5(6):364, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Mon62] and exception [Fer62].

**Dietzel:1962:ATM**

- [Die62] Gerard F. Dietzel. Algorithm 122: Tridiagonal matrix. *Communications of the ACM*, 5(9):482–483, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Digby:1963:AD**

- [Dig63] David W. Digby. Algorithm 159: Determinant. *Communications of the ACM*, 6(3):104, March

1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dijkstra:1961:LED**

- [Dij61] E. W. Dijkstra. Letter to the Editor: Defense of ALGOL 60. *Communications of the ACM*, 4(11):502–503, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dijkstra:1964:SCA**

- [Dij64] E. W. Dijkstra. Some comments on the aims of MIRFAC. *Communications of the ACM*, 7(3):190, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dijkstra:1965:SPC**

- [Dij65] Edsger W. Dijkstra. Solution of a problem in concurrent programming control. *Communications of the ACM*, 8(9):569, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dijkstra:1968:LEG**

- [Dij68a] Edsger W. Dijkstra. Letter to the Editor: Go to statement considered harmful. *Communications of the ACM*, 11(3):147–148, March 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). This letter inspired scores of others, published mainly in SIGPLAN Notices up to the mid-1980s. The best-known is [Knu74].



**Dijkstra:1968:SMS**

- [Dij68b] Edsger W. Dijkstra. The structure of the “THE”-multiprogramming system. *Communications of the ACM*, 11(5):341–346, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dinsmore:1965:LSS**

- [Din65] R. J. Dinsmore. Longer strings from sorting. *Communications of the ACM*, 8(1):48, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Davis:1965:SKR**

- [DL65] D. R. Davis and A. D. Lin. Secondary key retrieval using an IBM 7090-1301 system. *Communications of the ACM*, 8(4):243–246, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Deutsch:1967:OE**

- [DL67] L. Peter Deutsch and Butler W. Lampson. An online editor. *Communications of the ACM*, 10(12):793–799, 803, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Davis:1962:MPT**

- [DLL62] Martin Davis, George Logemann, and Donald Loveland. A machine program for theorem-proving. *Communications of the ACM*, 5(7):394–397, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dargel:1966:AEB**

- [DLW66] Robert H. Dargel, Frank R. Loscalzo, and Thomas H. Witt. Automatic error bounds on real zeros of rational functions. *Communications of the ACM*, 9(11):806–809, November 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**deMaine:1965:SJM**

- [dM65] P. A. D. de Maine. The self-judgment method of curve fitting. *Communications of the ACM*, 8(8):518–526, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Day:1969:CDD**

- [DME69] R. H. Day, M. K. Mansfield, and M. E. Ellis. CODAS: A data display system. *Communications of the ACM*, 12(2):67–72, February 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dahl:1966:SAB**

- [DN66] Ole-Johan Dahl and Kristen Nygaard. SIMULA, an ALGOL-based simulation language. *Communications of the ACM*, 9(9):671–678, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dodd:1965:RSB**

- [Dod65] George G. Dodd. Remarks on simulation of Boolean functions. *Communications of the ACM*, 8(8):517, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Dodd:1968:LEA**

- [Dod68] George G. Dodd. Letter to the Editor: ACM a clearing house for computer acronyms? *Communications of the ACM*, 11(5):378, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Domingo:1963:AZ**

- [Dom63] Carlos Domingo. Algorithm 194: ZERSOL. *Communications of the ACM*, 6(8):441, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Donally:1962:RWC**

- [Don62] W. L. Donally. A report writer for COBOL. *Communications of the ACM*, 5(5):261, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Donnelly:1969:STU**

- [Don69] T. Donnelly. Some techniques for using pseudorandom numbers in computer simulation. *Communications of the ACM*, 12(7):392–394, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dorrer:1964:ACE**

- [Dor64] Egon Dorrer. Algorithm 240: Coordinates on an ellipsoid. *Communications of the ACM*, 7(9):546, September 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dorrer:1968:ADS**

- [Dor68] Egon Dorrer. Algorithm 322:  $F$ -distribution [S14]. *Communications of the ACM*, 11(2):116–117, February 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dow:1961:PDC**

- [Dow61] James Dow. Programming a duplex computer system. *Communications of the ACM*, 4(11):507–513, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Downie:1969:LEO**

- [Dow69] Currie S. Downie. Letter to the Editor: On obtaining technical information from the Federal Government. *Communications of the ACM*, 12(6):303, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Doyle:1961:IR**

- [Doy61] L. B. Doyle. Information retrieval. *Communications of the ACM*, 4(4):195, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Doyle:1962:ACW**

- [Doy62] Lauren B. Doyle. Associated characteristics of words in text. *Communications of the ACM*, 5(4):223, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



- [Doy65] **Doyle:1965:EEF** L. B. Doyle. Expanding the editing function in language data processing. *Communications of the ACM*, 8(4):238–243, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [DP67] **Dulley:1967:AFS** D. B. Dulley and M. L. V. Pitteaway. Algorithm 314: Finding a solution of  $N$  functional equations in  $N$  unknowns. *Communications of the ACM*, 10(11):726, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [DPJ64] **Denisov:1964:DCC** A. Denisov, G. Popov, and Richard W. Judy. Designing a computer center. *Communications of the ACM*, 7(4):252–255, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [DPT63] **Dalrymple:1963:NMD** Glenn V. Dalrymple and Ruheri Perez-Tamayo. A numerical method for the determination of moving field isodose curves for treatment planning in radiotherapy. *Communications of the ACM*, 6(10):625–626, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Dra64] **Drath:1964:AUF** D. G. Drath. Another use of FORTRAN II chaining. *Communications of the ACM*, 7(12):726, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Dre67] **Drew:1967:LMT** Daniel L. Drew. The LACONIQ monitor: time sharing for online dialogues. *Communications of the ACM*, 10(12):765–771, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [DRG63] **Domingo:1963:CAC** C. Domingo and F. Rodriguez-Gil. Certification of Algorithm 43: Crout II. *Communications of the ACM*, 6(8):445–446, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [DRR68] **Dill:1968:PLS** J. C. Dill, D. L. Randall, and I. Richer. PLEXUS—an on-line system for modeling neural networks. *Communications of the ACM*, 11(9):622–629, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [DS61] **Dobrusky:1961:UCO** W. B. Dobrusky and T. B. Steel. Universal computer-oriented language. *Communications of the ACM*, 4(3):138, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Dub61] **Dubay:1961:RAS** G. H. Dubay. Remark on Algorithm 52: A set of test matrices. *Communications of the ACM*,



4(11):498, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Duke:1969:CAF**

- [Duk69] B. J. Duke. Certification of Algorithm 298 [F1]: Determination of the square root of a positive definite matrix. *Communications of the ACM*, 12(6):325–326, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dumey:1963:NSM**

- [Dum63] Arnold I. Dumey. Note on stochastic matrices. *Communications of the ACM*, 6(9):515, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Duncan:1961:LEC**

- [Dun61] F. G. Duncan. Letter to the Editor: On the calculation of interest. *Communications of the ACM*, 4(3):A13, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Duncan:1965:LEF**

- [Dun65a] A. K. Duncan. Letter to the Editor: Further results on computer construction of school timetables. *Communications of the ACM*, 8(1):72, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dunham:1965:CSU**

- [Dun65b] Charles Dunham. A candidate for the simplest uncomputable function. *Communications of the ACM*,

8(4):201, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Letter to the editor.

**Dunham:1969:MLE**

- [Dun69] Charles B. Dunham. Minimax logarithmic error. *Communications of the ACM*, 12(10):581–582, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Durstenfeld:1964:ARP**

- [Dur64] Richard Durstenfeld. Algorithm 235: Random permutation. *Communications of the ACM*, 7(7):420, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dennis:1966:PSM**

- [DV66] Jack B. Dennis and Earl C. Van Horn. Programming semantics for multiprogrammed computations. *Communications of the ACM*, 9(3):143–155, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**deWitte:1960:LSF**

- [dW60a] Leendert de Witte. Least squares fitting of a great circle through points on a sphere. *Communications of the ACM*, 3(11):611–613, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dimsdale:1960:PEC**

- [DW60b] B. Dimsdale and G. M. Weinberg. Programmed error correction in Project Mercury. *Communications*



of the *ACM*, 3(12):649–652, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dahm:1962:ANSa**

- [DW62a] David M. Dahm and M. Wells. Algorithm 137: Nesting of for statement I. *Communications of the ACM*, 5(11):555, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dahm:1962:ANSb**

- [DW62b] David M. Dahm and M. Wells. Algorithm 138: Nesting of for statement II. *Communications of the ACM*, 5(11):555–556, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dzuback:1965:OSF**

- [DW65a] B. J. Dzuback and C. R. Warburton. The organization of structured files. *Communications of the ACM*, 8(7):446–452, July 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dzubak:1965:OSF**

- [DW65b] B. J. Dzubak and C. R. Warburton. The organization of structured files. *Communications of the ACM*, 8(7):446–452, July 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Dwyer:1963:CAH**

- [Dwy63] Thomas A. Dwyer. Certification of Algorithm 210: Hermite interpolation. *Communications of the ACM*,

6(10):619, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Eaves:1962:AP**

- [Eav62] B. C. Eaves. Algorithm 130: PERMUTE. *Communications of the ACM*, 5(11):551, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Englund:1961:CT**

- [EC61] Donald Englund and Ellen Clark. The CLIP translator. *Communications of the ACM*, 4(1):19–22, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Eccles:1961:DCU**

- [Ecc61] Wm. J. Eccles. Digital computers in universities. *Communications of the ACM*, 4(1):A11, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Eckert:1963:ACA**

- [Eck63] James B. Eckert. Account classification at automating banks. *Communications of the ACM*, 6(12):701–704, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Evans:1965:DEC**

- [ED65] Thomas G. Evans and D. Lucille Darley. DEBUG — an extension to current online debugging techniques. *Communications of the ACM*, 8(5):321–326, May 1965. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Edmundson:1964:PAA**

- [Edm64] H. P. Edmundson. Problems in automatic abstracting. *Communications of the ACM*, 7(4):259–263, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Edwards:1963:ADA**

- [Edw63] James D. Edwards. An automatic data acquisition and inquiry system using disk files. *Communications of the ACM*, 6(10):626–630, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ernst:1965:REG**

- [EGJ65a] Ernst, Guiliano, and Jones. Response by Ernst, Giuliano and Jones. *Communications of the ACM*, 8(11):710, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ernst:1965:CDS**

- [EGJ65b] M. L. Ernst, V. E. Giuliano, and P. E. Jones. "centralization of document searching facilities". *Communications of the ACM*, 8(11):704–706, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Egler:1963:PCL**

- [Egl63] J. F. Egler. A procedure for converting logic table conditions into an efficient sequence of test instructions. *Communications of*

*the ACM*, 6(9):510–514, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Engvold:1967:MMT**

- [EH67] K. J. Engvold and J. L. Hughes. A model for a multifunctional teaching system. *Communications of the ACM*, 10(6):339–342, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Engvold:1968:EGP**

- [EH68] K. J. Engvold and J. L. Hughes. Education: A general-purpose display processing and tutorial system. *Communications of the ACM*, 11(10):697–702, October 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Evans:1967:CEF**

- [EHL67] J. W. Evans, F. Harary, and M. S. Lynn. On the computer enumeration of finite topologies. *Communications of the ACM*, 10(5):295–297, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ehrlich:1966:IVD**

- [Ehr66] Louis W. Ehrlich. Iterative vs. a direct method for solving fourth order elliptic difference equations. *Communications of the ACM*, 9(7):475, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Ehrlich:1967:CNA**

- [Ehr67a] L. W. Ehrlich. Corrigenda: numerical analysis. *Communications of the ACM*, 10(4):224, April 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ehrlich:1967:MNM**

- [Ehr67b] L. W. Ehrlich. A modified Newton method for polynomials. *Communications of the ACM*, 10(2):107–108, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ehrman:1968:LAC**

- [Ehr68] John R. Ehrman. “logical” arithmetic on computers with two’s complement binary arithmetic. *Communications of the ACM*, 11(7):517–520, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Eisman:1963:PER**

- [Eis63] S. H. Eisman. Polynomial evaluation revisited. *Communications of the ACM*, 6(7):384–385, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Eisner:1967:NIF**

- [Eis67] E. Eisner. Numerical integration of a function that has a pole. *Communications of the ACM*, 10(4):239–243, April 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**elLozy:1976:RAC**

- [eL76] Mohamed el Lozy. Remark on “Algorithm 299: Chi-Squared Integral [S15]”. *ACM Transactions on Mathematical Software*, 2(4):393–395, December 1976. CODEN ACMSCU. ISSN 0098-3500. See [HP67, HP85].

**Elkin:1964:MS**

- [Elk64] Sanford Elkin. More on SLIP. *Communications of the ACM*, 7(5):315, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Elkin:1965:LEC**

- [Elk65] Sanford Elkin. Letter to the Editor: On combining FORTRAN and COBOL in problem solving. *Communications of the ACM*, 8(10):594, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ellenberger:1960:ANS**

- [Ell60a] K. W. Ellenberger. Algorithm 30: Numerical solution of the polynomial equation. *Communications of the ACM*, 3(12):643, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Nov85].

**Ellenberger:1960:PNS**

- [Ell60b] Kenneth W. Ellenberger. On programming the numerical solution of polynomial equations. *Communications of the ACM*, 3(12):644–647, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See erratum [Ell61].



- [Ell61] **Ellenberger:1961:EPN** W. Ellenberger. Erratum: "On programming the numerical solution of polynomial equations". *Communications of the ACM*, 4(2):98, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Ell60b].
- [Ell62] **Ellis:1962:EAR** P. V. Ellis. An evaluation of Autocode readability. *Communications of the ACM*, 5(3):156–159, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Ell65] **Elliott:1965:CAG** Roger W. Elliott. Certification of Algorithm 202 [G6]: Generation of permutations in lexicographical order. *Communications of the ACM*, 8(9):556, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [She63].
- [Ell68] **Elliot:1968:MLC** Roger W. Elliot. Master's level computer science curricula. *Communications of the ACM*, 11(7):507–508, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Ell74a] **Ellis:1974:RAHa** T. M. R. Ellis. Remark on "Algorithm 420: Hidden-line plotting program". *Communications of the ACM*, 17(6):324–325, June 1974. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [Wil72, MC73, Wil73, Ell74b, Gai74, MM73].
- [Ell74b] **Ellis:1974:RAHb** T. M. R. Ellis. Remark on "Algorithm 420: Hidden-line plotting program". *Communications of the ACM*, 17(12):706–??, 1974. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remarks [Wil72, MC73, Wil73, Ell74a, Gai74].
- [Eme62] **Emery:1962:MDP** J. C. Emery. Modular data processing systems written in COBOL. *Communications of the ACM*, 5(5):263–268, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Eng63] **Englar:1963:PMT** Thomas S. Englar. Pracnique: More test matrices for determinants and inverses. *Communications of the ACM*, 6(12):745, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [EO66] **Engel:1966:BF** Frank A. Engel III and Lewis A. Ondis II. On behalf of FORTRAN. *Communications of the ACM*, 9(4):257, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [EPBS63] **Eickel:1963:SCG** J. Eickel, M. Paul, F. L. Bauer, and K. Samelson. A syntax controlled generator of formal language processors. *Communications of the ACM*, 6(8):451–455, August 1963. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Evans:1961:UTL**

- [EPV61] A. Evans, Jr., A. J. Perlis, and H. Van Zoeren. The use of threaded lists in constructing a combined ALGOL and machine-like assembly processor. *Communications of the ACM*, 4(1):36–41, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Er:1985:RG**

- [Er85] M. C. Er. Remark on “Algorithm 246: Graycode [Z]”. *ACM Transactions on Mathematical Software*, 11(4):441–443, December 1985. CODEN ACMSCU. ISSN 0098-3500. See [Boo64c, Mis75].

**Ercoli:1960:LEE**

- [Erc60] Paolo Ercoli. Letter to the Editor: Errors due to overflow in arithmetic operations. *Communications of the ACM*, 3(12):A9, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [EV57].

**Erwin:1962:RAC**

- [Erw62] Grant W. Erwin, Jr. Remark on Algorithm 106: Complex number to a real power. *Communications of the ACM*, 5(11):557, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [JS62b].

**Eisenman:1962:AEP**

- [ES62] Burton Eisenman and Martin Shapiro. Algorithm 119: Evalua-

tion of a Pert network. *Communications of the ACM*, 5(8):436–437, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ercoli:1957:EDO**

- [EV57] Paolo Ercoli and Roberto Vacca. Errors due to overflow in arithmetic operations particularly as regards FINAC electronic computer. *Journal of the ACM*, 4(4):450–455, October 1957. CODEN JACOA. ISSN 0004-5411. See letter [Erc60].

**Evans:1962:AJ**

- [Eva62] Thomas G. Evans. Algorithm 85: Jacobi. *Communications of the ACM*, 5(4):208, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Evans:1963:RAS**

- [Eva63] Arthur Evans, Jr. Remark on Algorithm 150: Syminv2. *Communications of the ACM*, 6(7):390, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Edmundson:1961:AAI**

- [EW61] H. P. Edmundson and R. E. Wyllys. Automatic abstracting and indexing—survey and recommendations. *Communications of the ACM*, 4(5):226–234, May 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fairweather:1969:AMR**

- [Fai69] Graeme Fairweather. Algorithm 351: Modified Romberg quadrature



- [D1]. *Communications of the ACM*, 12(6):324–325, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Far66] I. Farkas. Certification of Algorithm 257 [D1]: Havie Integrator. *Communications of the ACM*, 9(12):869–871, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Far69] I. Farkas. Certification of Algorithm 165 [S21]: Complete elliptic integrals. *Communications of the ACM*, 12(1):38, January 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Fat69] Richard J. Fateman. Programming techniques: Optimal code for serial and parallel computation. *Communications of the ACM*, 12(12):694–695, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Fau64] Ramon D. Faulk. An inductive approach to language translation. *Communications of the ACM*, 7(11):647–653, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Fed63] John E. Fedako. Pracniques: 1410 Fortran edit feature. *Communications of the ACM*, 6(6):310–311, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Fei61] Edward A. Feigenbaum. Soviet cybernetics and computer sciences, 1960. *Communications of the ACM*, 4(12):566–579, December 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Fei67] Louis Fein. Letter to the Editor: What is the true value of conferences? *Communications of the ACM*, 10(5):259–260, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Fel62] Julian Feldman. TALL—a list processor for the Philco 2000 computer. *Communications of the ACM*, 5(9):484–485, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Fel66] Jerome A. Feldman. A formal semantics for computer languages and its application in a compiler-compiler. *Communications of the ACM*, 9(1):3–9, January 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Fel69] Bryna M. Fellen. Letter to the Editor: an implementation of the



Tausworthe generator. *Communications of the ACM*, 12(7):413, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Whi68b].

**Fenichel:1968:AAD**

- [Fen68] Robert R. Fenichel. Algorithm 329: Distributed of indistinguishable objects into distinguishable slots [G6]. *Communications of the ACM*, 11(6):430, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ferguson:1960:FS**

- [Fer60] David E. Ferguson. Fibonacci searching. *Communications of the ACM*, 3(12):648, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ferguson:1962:LES**

- [Fer62] Mary Ferguson. Letters to the Editor: Still more on bcd comparisons. *Communications of the ACM*, 5(10):497, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Mon62, Dic62].

**Ferguson:1963:DSS**

- [Fer63] H. Earl Ferguson. Debugging systems at the source language level. *Communications of the ACM*, 6(8):430–432, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ferguson:1964:LEM**

- [Fer64] David E. Ferguson. Letter to the Editor: More on merging. *Com-*

*munications of the ACM*, 7(5):297, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ferring:1965:RAF**

- [Fer65] Mats Ferring. Remark on Algorithm 231 [F1]: Matrix inversion. *Communications of the ACM*, 8(4):220, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ferguson:1966:EMA**

- [Fer66] David E. Ferguson. Evolution of the meta-assembly program. *Communications of the ACM*, 9(3):190–196, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fettis:1962:AES**

- [Fet62] Henry E. Fettis. Algorithm 134: Exponentiation of series. *Communications of the ACM*, 5(11):553, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fettis:1963:AES**

- [Fet63a] H. E. Fettis. Algorithm 158: Exponentiation of series. *Communications of the ACM*, 6(3):104, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fettis:1963:AAR**

- [Fet63b] Henry E. Fettis. Algorithm 158: (Algorithm 134, revised) Exponentiation of series. *Communications of the ACM*, 6(3):104, March 1963. CODEN CACMA2. ISSN



- 0001-0782 (print), 1557-7317 (electronic).
- [Fet63c] Henry E. Fettis. Algorithm 163: Modified Hankel function. *Communications of the ACM*, 6(4):161–162, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Fet63d] Henry E. Fettis. Algorithm 193: Reversion of series. *Communications of the ACM*, 6(7):388, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Feu60] Wallace Feurzeig. Algorithm 23: MATH SORT. *Communications of the ACM*, 3(11):601, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Feu61] Wallace Feurzeig. Putting a hex on  $e^x$ . *Communications of the ACM*, 4(9):402–404, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [FG68] Jerome Feldman and David Gries. Translator writing systems. *Communications of the ACM*, 11(2):77–113, February 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [FH60] George E. Forsythe and John G. Herriot. Remark on Algorithm 15: Rootfinder II. *Communications of the ACM*, 3(11):602, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [FH62] W. Fraser and J. F. Hart. On the computation of rational approximations to continuous functions. *Communications of the ACM*, 5(7):401–403, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [FH64] W. Fraser and J. F. Hart. Remark on Algorithm 162: Near-minimax polynomial approximations and partitioning of intervals. *Communications of the ACM*, 7(8):486–489, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Fie69] J. B. F. Field. Certification of Algorithm 322 [S14]. *Communications of the ACM*, 12(1):39, January 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Fik66] C. T. Fike. Starting approximations for square root calculation on IBM System/360. *Communications of the ACM*, 9(4):297–299, April 1966. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic). See letter [Fik67a].

**Fike:1967:LER**

- [Fik67a] C. T. Fike. Letter to the Editor: A rational approximation optimal by Moursund's criterion. *Communications of the ACM*, 10(11):683–684, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Mou67, Fik66].

**Fike:1967:MEP**

- [Fik67b] C. T. Fike. Methods of evaluating polynomial approximations in function evaluation routines. *Communications of the ACM*, 10(3):175–178, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark on efficiency [Cod67].

**Finerman:1966:CCW**

- [Fin66] Aaron Finerman. Computer capabilities at Western European universities. *Communications of the ACM*, 9(12):840–844, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Finerman:1969:CCA**

- [Fin69] Aaron Finerman. Computing capabilities at Argentine and Chilean universities. *Communications of the ACM*, 12(8):425–431, August 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

[Fir69]

**Firestone:1969:LEM**

Roger M. Firestone. Letter to the Editor: Move ACM 1971 Conference from Chicago? *Communications of the ACM*, 12(6):303, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fischer:1961:CVF**

[Fis61]

C. M. Fischer. Combat vehicle firing stability (active suspension). *Communications of the ACM*, 4(6):279–283, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fischer:1965:MTI**

[Fis65]

Patrick C. Fischer. Multi-tape and infinite-state automata — A survey. *Communications of the ACM*, 8(12):799–805, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fisher:1966:DDD**

[Fis66]

D. L. Fisher. Data, documentation, and decision tables. *Communications of the ACM*, 9(1):26–31, January 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fishman:1967:PSA**

[Fis67]

George S. Fishman. Problems in the statistical analysis of simulation experiments: The comparison of means and the length of sample records. *Communications of the ACM*, 10(2):94–99, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Fisher:1968:CCP**

- [Fis68] A. C. Fisher. Computer construction of project networks. *Communications of the ACM*, 11(7):493–497, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fitzwater:1964:SAR**

- [Fit64] D. R. Fitzwater. A storage allocation and reference structure. *Communications of the ACM*, 7(9):542–545, September 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fitzgerald:1968:LEC**

- [Fit68] A. Kenneth Fitzgerald. Letter to the Editor: on Congressman Brooks' letter re: standardization. *Communications of the ACM*, 11(9):593, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fine:1966:DPB**

- [FJM66] Gerald H. Fine, Calvin W. Jackson, and Paul V. McIsaac. Dynamic program behavior under paging. *Communications of the ACM*, 9(7):478, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Farbman:1960:CCO**

- [FK60] David Farbman and Richard Ketter. COPE (Console Operator Proficiency Examination). *Communications of the ACM*, 3(12):661–662, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Frank:1960:HSS**

- [FL60] R. M. Frank and R. B. Lazarus. A high-speed sorting procedure. *Communications of the ACM*, 3(1):20–22, January 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fox:1968:SAA**

- [FL68] B. L. Fox and D. M. Landi. Scientific applications: An algorithm for identifying the ergodic subchains and transient states of a stochastic matrix. *Communications of the ACM*, 11(9):619–621, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fletcher:1963:CAX**

- [Fle63] William E. Fletcher. Certification of Algorithm 162: XYMOVE plotting. *Communications of the ACM*, 6(8):450, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fletcher:1965:PSP**

- [Fle65] John G. Fletcher. A program to solve the pentomino problem by the recursive use of macros. *Communications of the ACM*, 8(10):621–623, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fletcher:1966:CAF**

- [Fle66] R. Fletcher. Certification of Algorithm 251: Function minimisation. *Communications of the ACM*, 9(9):686–687, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Floyd:1960:ARI**

- [Flo60a] R. W. Floyd. Algorithm 18: Rational interpolation by continued fractions. *Communications of the ACM*, 3(9):508, September 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Floyd:1960:ADA**

- [Flo60b] Robert W. Floyd. An algorithm defining ALGOL assignment statements. *Communications of the ACM*, 3(3):170–171, March 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Floyd:1960:NA**

- [Flo60c] Robert W. Floyd. Note of amplification. *Communications of the ACM*, 3(6):346, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Floyd:1961:ACE**

- [Flo61] Robert W. Floyd. An algorithm for coding efficient arithmetic operations. *Communications of the ACM*, 4(1):42–51, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Flores:1962:ASP**

- [Flo62a] Ivan Flores. Algorithm 76: Sorting procedures. *Communications of the ACM*, 5(1):48–50, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Floyd:1962:AT**

- [Flo62b] Robert W. Floyd. Algorithm 113: Treesort. *Communications of the ACM*, 5(8):434, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Floyd:1962:AA**

- [Flo62c] Robert W. Floyd. Algorithm 96: Ancestor. *Communications of the ACM*, 5(6):344–345, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Floyd:1962:ASP**

- [Flo62d] Robert W. Floyd. Algorithm 97: Shortest path. *Communications of the ACM*, 5(6):345, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Floyd:1962:APS**

- [Flo62e] Robert W. Floyd. On ambiguity in phrase structure languages. *Communications of the ACM*, 5(10):526, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Floyd:1962:NPS**

- [Flo62f] Robert W. Floyd. On the nonexistence of a phrase structure grammar for ALGOL 60. *Communications of the ACM*, 5(9):483–484, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Floyd:1964:AT**

- [Flo64a] Robert W. Floyd. Algorithm 245: Treesort. *Communications*



of the *ACM*, 7(12):701, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See certification [Abr65, Lon70].

**Floyd:1964:BCS**

- [Flo64b] Robert W. Floyd. Bounded context syntactic analysis. *Communications of the ACM*, 7(2):62–67, February 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fein:1967:ACI**

- [FO67] Louis Fein and Anthony G. Oettinger. ACM has a crisis of identity? *Communications of the ACM*, 10(1):1, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Foata:1961:PRC**

- [Foa61] Dominique C. Foata. On a program for Ray–Chaudhuri’s algorithm for a minimum cover of an abstract complex. *Communications of the ACM*, 4(11):504–506, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Folkers:1963:LEC**

- [Fol63] J. S. Folkers. Letter to the Editor: construction of school timetables by a computer. *Communications of the ACM*, 6(8):421, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Foley:1967:MMU**

- [Fol67] James D. Foley. A Markovian model of the University of Michigan Executive System. *Communications of the ACM*, 10(9):584–588, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1960:ACP**

- [For60a] George E. Forsythe. Algorithm 16: Crout with pivoting. *Communications of the ACM*, 3(9):507–508, September 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1960:RAC**

- [For60b] George E. Forsythe. Remark on Algorithm 16: Crout with pivoting. *Communications of the ACM*, 3(10):540, October 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ford:1963:LEB**

- [For63a] V. J. Ford. Letter to the Editor: B5000 COBOL-61 compiler equipment configurations. *Communications of the ACM*, 6(8):438, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Foreman:1963:ADC**

- [For63b] William T. Foreman, Jr. Algorithm 208: Discrete convolution. *Communications of the ACM*, 6(10):615–616, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Forrington:1964:FSM**

- [For64a] C. V. D. Forrington. A Fourier series method for the numerical solution of a class of parabolic partial differential equations. *Communications of the ACM*, 7(3):179–181, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1964:A**

- [For64b] G. E. Forsythe. Algorithms. *Communications of the ACM*, 7(6):347–349, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1964:PLAa**

- [For64c] George E. Forsythe. President's letter to the ACM membership. *Communications of the ACM*, 7(8):507–509, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1964:PLAb**

- [For64d] George E. Forsythe. President's letter to the ACM membership. *Communications of the ACM*, 7(10):633–636, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1964:PLAc**

- [For64e] George E. Forsythe. President's letter to the ACM membership. *Communications of the ACM*, 7(12):697–699, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1964:UCN**

- [For64f] George E. Forsythe. An undergraduate curriculum in numerical analysis. *Communications of the ACM*, 7(4):214–215, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1965:PLAc**

- [For65a] George E. Forsythe. President's letter to the ACM membership. *Communications of the ACM*, 8(10):591, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1965:PLAd**

- [For65b] George E. Forsythe. President's letter to the ACM membership. *Communications of the ACM*, 8(12):727, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1965:PLAa**

- [For65c] George E. Forsythe. President's letter to the ACM membership: why ACM? *Communications of the ACM*, 8(3):143–144, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1965:PLAb**

- [For65d] George E. Forsythe. President's letter to the ACM membership: why ACM? *Communications of the ACM*, 8(7):422–426, July 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Forsythe:1965:PLM**

- [For65e] George E. Forsythe. President's letter to the membership. *Communications of the ACM*, 8(9):541, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forbes:1966:ES**

- [For66a] George Forbes. An engineering simulator. *Communications of the ACM*, 9(7):480, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1966:ASC**

- [For66b] George E. Forsythe. Algorithms for scientific computation. *Communications of the ACM*, 9(4):255–256, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1966:FAA**

- [For66c] George E. Forsythe. A forum on algorithms: Algorithms for scientific computation. *Communications of the ACM*, 9(4):255–256, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1966:PLAa**

- [For66d] George E. Forsythe. President's letter to the ACM membership. *Communications of the ACM*, 9(1):1, January 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1966:PLAb**

- [For66e] George E. Forsythe. President's letter to the ACM membership. *Communications of the ACM*, 9(4):244, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1966:PLAc**

- [For66f] George E. Forsythe. President's letter to the ACM membership. *Communications of the ACM*, 9(5):325, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1966:WR**

- [For66g] George E. Forsythe. Welcoming remarks. *Communications of the ACM*, 9(3):137–138, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1967:UEP**

- [For67] George E. Forsythe. A university's educational program in computer science. *Communications of the ACM*, 10(1):3–11, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Foster:1962:MRS**

- [Fos62] Malcolm B. Foster. A method of representation, storage and retrieval of 13 random codes in a 4-digit number or 16 random codes in a 5-digit number. *Communications of the ACM*, 5(3):165, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Fotheringham:1961:DSA**

- [Fot61] John Fotheringham. Dynamic storage allocation in the Atlas computer, including an automatic use of a backing store. *Communications of the ACM*, 4(10):435–436, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fox:1969:ALA**

- [Fox69] B. L. Fox. Accelerating LP algorithms. *Communications of the ACM*, 12(7):384–385, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Farley:1966:MMC**

- [FPMC66] W. E. Farley, A. H. Pulido, T. M. Minckler, and L. D. Cady. Man/machine communications in the biological medical research environment. *Communications of the ACM*, 9(7):479–480, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Feldman:1969:ABA**

- [FR69] Jerome A. Feldman and Paul D. Rovner. An Algol-based associative language. *Communications of the ACM*, 12(8):439–449, August 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fredkin:1960:TM**

- [Fre60] Edward Fredkin. Trie memory. *Communications of the ACM*, 3(9):490–499, September 1960. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Freeman:1961:AM**

- [Fre61] R. Don Freeman, Jr. Algorithm 32: MULTINT. *Communications of the ACM*, 4(2):106, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Freed:1962:LIC**

- [Fre62] Roy N. Freed. Legal implications of computer use. *Communications of the ACM*, 5(12):607–612, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Freed:1963:ARE**

- [Fre63a] Bruce H. Freed. Algorithm 41, revision evaluation of determinant. *Communications of the ACM*, 6(9):520, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Freed:1963:CAE**

- [Fre63b] Bruce H. Freed. Certification of Algorithm 41: Evaluation of determinant. *Communications of the ACM*, 6(9):520, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Freed:1963:SLI**

- [Fre63c] Roy N. Freed. Some legal implications of the use of computers in the banking business. *Communications of the ACM*, 6(12):713–720, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**French:1963:CPC**

- [Fre63d] Norman C. French. Computer planned collates. *Communications of the ACM*, 6(5):225–227, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Frieden:1960:VTC**

- [Fri60] Howard Frieden. A variant technique for counting ones. *Communications of the ACM*, 3(8):474, August 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fritz:1963:SD**

- [Fri63] W. Barkley Fritz. Selected definitions. *Communications of the ACM*, 6(4):152–158, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Friedland:1967:AAV**

- [Fri67] Paul Friedland. Algorithm 312: Absolute value and square root of a complex number. *Communications of the ACM*, 10(10):665, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Friedman:1969:CST**

- [Fri69a] Joyce Friedman. A computer system for transformational grammar. *Communications of the ACM*, 12(6):341–348, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Friedman:1969:DRG**

- [Fri69b] Joyce Friedman. Directed random generation of sentences. *Communications of the ACM*, 12(1):40–46, January 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Frisch:1972:RAR**

- [Fri72] Michael J. Frisch. Remark on “Algorithms 352, 385, 392: Remarks on characteristic values and associated solutions of Mathieu’s differential equation, exponential integral, and systems of hyperbolic P.D.E.”. *Communications of the ACM*, 15(12):1074–??, 1972. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Cle69, Pac70, SM70].

**Feigenbaum:1962:SHV**

- [FS62] Edward A. Feigenbaum and Herbert A. Simon. Simulation of human verbal learning behavior. *Communications of the ACM*, 5(4):223, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Falkin:1963:SLV**

- [FS63] Joel Falkin and Sal Savastano, Jr. Sorting with large-volume, random-access, drum storage. *Communications of the ACM*, 6(5):240–244, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fletcher:1966:AIT**

- [FS66] William Fletcher and Roland Silver. Algorithm 284: Interchange



of two blocks of data. *Communications of the ACM*, 9(5):326, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Ito76].

**Filho:1967:AGF**

- [FS67a] Antonino Machado Souza Filho and Georges Schwachheim. Algorithm 309: Gamma function with arbitrary precision. *Communications of the ACM*, 10(8):511–512, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fisher:1967:TSC**

- [FS67b] R. O. Fisher and C. D. Shepard. Time sharing on a computer with a small memory. *Communications of the ACM*, 10(2):77–81, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fuchel:1968:CDM**

- [Fuc68] Kurt Fuchel. Considerations in the design of a multiple computer system with extended core storage. *Communications of the ACM*, 11(5):334–340, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fulkerson:1967:STC**

- [Ful67] L. Fulkerson. Should there be a CS undergraduate program? *Communications of the ACM*, 10(3):148, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Filsak:1963:CAA**

- [FV63] Z. Filsak and L. Vrchovská. Certification of Algorithm 173: Assign. *Communications of the ACM*, 6(10):619, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1962:VDA**

- [FvdGT62] G. E. Forsythe, J. von der Groeben, and J. G. Toole. Vectorcardiographic diagnosis with the aid of ALGOL. *Communications of the ACM*, 5(2):118–122, February 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fliegel:1968:LEM**

- [FvF68] Henry F. Fliegel and Thomas C. van Flandern. Letter to the Editor: a machine algorithm for processing calendar dates. *Communications of the ACM*, 11(10):657, October 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Forsythe:1965:AGP**

- [FW65a] George E. Forsythe and Niklaus Wirth. Automatic grading programs. *Communications of the ACM*, 8(5):275–278, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Fredericks:1965:AML**

- [FW65b] D. S. Fredericks and C. R. Warburton. Across machine lines in COBOL. *Communications of the ACM*, 8(12):731–735, December



1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [FY69] Robert R. Fenichel and Jerome C. Yochelson. A LISP garbage-collector for virtual-memory computer systems. *Communications of the ACM*, 12(11):611–612, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Gab67] A. Gabay. Letter to the Editor: Change *CACM* and *Journal* format? *Communications of the ACM*, 10(9):531, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Gai65] R. Stockton Gaines. On the translation of machine language programs. *Communications of the ACM*, 8(12):736–741, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Originally appeared in ACM Reprogramming Conference, Princeton, Jun 1965.
- [Gai74] Blaine Gaither. Remark on “Algorithm 420: Hidden-line plotting program”. *Communications of the ACM*, 17(6):324–??, 1974. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Wil72, MC73, Wil73, Ell74a, Ell74b].
- [Gal60a] Bernard A. Galler. Letters to the Editor: Cost of software. *Communications of the ACM*, 3(4):A12, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Gal60b] Bernard A. Galler. Letters to the Editor: H. Kanner’s “An Algebraic Translator”. *Communications of the ACM*, 3(4):A13, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Gal60c] G. M. Galler. Algorithm 10: Evaluation of the Chebyshev polynomial  $T_n(X)$  by recursion. *Communications of the ACM*, 3(6):353, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Gal60d] G. M. Galler. Algorithm 11: Evaluation of the Hermite polynomial  $H_n(X)$  by recursion. *Communications of the ACM*, 3(6):353, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Gal60e] G. M. Galler. Algorithm 12: Evaluation of the Laguerre polynomial  $L_n(X)$  by recursion. *Communications of the ACM*, 3(6):353, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Galler:1960:AELb**

- [Gal60f] G. M. Galler. Algorithm 13: Evaluation of the Legendre polynomial  $P_n(X)$  by recursion. *Communications of the ACM*, 3(6):353, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1962:DS**

- [Gal62a] Bernard A. Galler. Definition of software. *Communications of the ACM*, 5(1):6, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1962:SIA**

- [Gal62b] Bernard A. Galler. SHARE information available to nonmembers. *Communications of the ACM*, 5(12):574, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galdwin:1964:ACI**

- [Gal64a] Harmon T. Galdwin. An algorithm for converting integers from base  $\alpha$  to base  $\beta$ . *Communications of the ACM*, 7(4):241–242, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1964:SMS**

- [Gal64b] Bernard A. Galler. “simple I/O” MAD statements. *Communications of the ACM*, 7(1):3, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gallaher:1967:AAQ**

- [Gal67] L. J. Gallaher. Algorithm 303: An adaptive quadrature procedure with random panel sizes. *Communications of the ACM*, 10(6):373–374, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1968:ACA**

- [Gal68a] Bernard A. Galler. ACM: A coming of age. *Communications of the ACM*, 11(4):221, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1968:LEL**

- [Gal68b] Bernard A. Galler. Letter to the Editor: Language protection by trademark ill-advised. *Communications of the ACM*, 11(3):148, March 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1968:OAP**

- [Gal68c] Bernard A. Galler. Official ACM: President’s letter to the ACM membership. *Communications of the ACM*, 11(5):293, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1968:PLAa**

- [Gal68d] Bernard A. Galler. President’s letter to the ACM membership. *Communications of the ACM*, 11(2):74–76, February 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Galler:1968:PLAb**

- [Gal68e] Bernard A. Galler. President's letter to the ACM membership: Involvement. *Communications of the ACM*, 11(10):659, October 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1968:PLAc**

- [Gal68f] Bernard A. Galler. President's letter to the ACM membership: The ACM council. *Communications of the ACM*, 11(11):729, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1969:APLf**

- [Gal69a] Bernard A. Galler. ACM President's letter: And in the corner . . . . *Communications of the ACM*, 12(12):643, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1969:APLc**

- [Gal69b] Bernard A. Galler. ACM President's letter: "I protest". *Communications of the ACM*, 12(8):421, August 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1969:APLe**

- [Gal69c] Bernard A. Galler. ACM President's letter: J'accuse! *Communications of the ACM*, 12(11):593, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1969:APLa**

- [Gal69d] Bernard A. Galler. ACM President's letter: NATO and software engineering? *Communications of the ACM*, 12(6):301, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1969:APLd**

- [Gal69e] Bernard A. Galler. ACM President's letter: "tell it like it is". *Communications of the ACM*, 12(9):487, September 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1969:APLb**

- [Gal69f] Bernard A. Galler. ACM President's letter: "what's yours?". *Communications of the ACM*, 12(7):359, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1969:PLAd**

- [Gal69g] Bernard A. Galler. President's letter to the ACM membership: Let's face it. *Communications of the ACM*, 12(4):193, April 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1969:PLAa**

- [Gal69h] Bernard A. Galler. President's letter to the ACM membership: the graduate. *Communications of the ACM*, 12(1):1, January 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Galler:1969:PLAb**

- [Gal69i] Bernard A. Galler. President's letter to the ACM membership: The journal. *Communications of the ACM*, 12(2):65–66, February 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1969:PLAc**

- [Gal69j] Bernard A. Galler. President's letters to the ACM membership: the AFIPS constitution. *Communications of the ACM*, 12(3):188, March 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Garfinkel:1962:PMP**

- [Gar62] David Garfinkel. Programmed methods for printer graphical output. *Communications of the ACM*, 5(9):477–479, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Garber:1963:AAD**

- [Gar63] M. J. Garber. Addressing an array  $Y_i$  in  $k$ -dimensions by Fortran for analysis of variance. *Communications of the ACM*, 6(3):100–101, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Garwick:1964:GLC**

- [Gar64a] Jan V. Garwick. GARGOYLE: a language for compiler writing. *Communications of the ACM*, 7(1):16–20, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Garwick:1964:RFG**

- [Gar64b] Jan V. Garwick. Remark on further generalization of ALGOL. *Communications of the ACM*, 7(7):422–423, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Garber:1965:NZS**

- [Gar65] M. J. Garber. Negative and zero subscripts in Fortran II programming for the IBM 1620. *Communications of the ACM*, 8(8):515–516, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gargantini:1966:APE**

- [Gar66] I. Gargantini. On the application of the process of equalization of maxima to obtain rational approximation to certain modified Bessel functions. *Communications of the ACM*, 9(12):859–863, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Garwick:1968:PLG**

- [Gar68] Jan V. Garwick. Programming languages: GPL, a truly general purpose language. *Communications of the ACM*, 11(9):634–638, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gassner:1967:SRS**

- [Gas67] Betty Jane Gassner. Sorting by replacement selecting. *Communications of the ACM*, 10(2):89–93, February 1967. CODEN CACMA2.



ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gatto:1964:A**

- [Gat64] O. T. Gatto. Autosate. *Communications of the ACM*, 7(7):425–432, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gautschi:1964:AAB**

- [Gau64a] W. Gautschi. ACM Algorithm 236: Bessel functions of the first kind [S17]. *Communications of the ACM*, 7(8):479–480, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [Sko75a].

**Gautschi:1964:AGF**

- [Gau64b] Walter Gautschi. Algorithm 221: Gamma functions. *Communications of the ACM*, 7(3):143, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gautschi:1964:AIB**

- [Gau64c] Walter Gautschi. Algorithm 222: Incomplete beta functions ratios. *Communications of the ACM*, 7(3):143, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [KD71, Ell74b].

**Gautschi:1964:CAI**

- [Gau64d] Walter Gautschi. Certification of Algorithm 222: Incomplete beta function ratios. *Communications of the ACM*, 7(4):244, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gautschi:1965:ALF**

- [Gau65a] W. Gautschi. Algorithm 259: Legendre functions for arguments larger than one [S16]. *Communications of the ACM*, 8(8):488–492, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Jan77].

**Gautschi:1965:CAS**

- [Gau65b] Walter Gautschi. Certification of Algorithm 236 [S17]: Bessel functions of the first kind. *Communications of the ACM*, 8(2):105–106, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gautschi:1966:AD**

- [Gau66a] Walter Gautschi. Algorithm 282: Derivatives of  $e^x/x$ ,  $\cos(x)/x$ , and  $\sin(x)/x$ . *Communications of the ACM*, 9(4):272, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [GK70].

**Gautschi:1966:ARC**

- [Gau66b] Walter Gautschi. Algorithm 292: Regular Coulomb wave functions. *Communications of the ACM*, 9(11):793–795, November 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gautschi:1968:AAG**

- [Gau68] Walter Gautschi. Algorithm 331: Gaussian quadrature formulas [D1]. *Communications of the ACM*, 11(6):432–436, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Gautschi:1969:ACE**

- [Gau69a] Walter Gautschi. Algorithm 363: Complex error function [S15]. *Communications of the ACM*, 12(11): 635, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See certification [Köl72].

**Gautschi:1969:RAS**

- [Gau69b] Walter Gautschi. Remark on Algorithm 292 [S22]: Regular Coulomb wave functions. *Communications of the ACM*, 12(5):280, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gawlik:1963:MCB**

- [Gaw63] H. J. Gawlik. MIRFAC: a compiler based on standard mathematical notation and plain English. *Communications of the ACM*, 6(9): 545–547, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gawlik:1964:MRP**

- [Gaw64] H. J. Gawlik. MIRFAC: a reply to Professor Dijkstra. *Communications of the ACM*, 7(10):571, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Grad:1968:AEF**

- [GB68] J. Grad and M. A. Brebner. Algorithm 343: Eigenvalues and eigenvectors of a real general matrix. *Communications of the ACM*, 11(12):820–826, December 1968. CODEN CACMA2. ISSN 0001-0782

(print), 1557-7317 (electronic). See remark [Nie72].

**Gorn:1963:ASC**

- [GBG63] S. Gorn, R. W. Bemer, and J. Green. American Standard Code for Information Interchange. *Communications of the ACM*, 6(8): 422–426, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1964:PASa**

- [GBGL64a] S. Gorn, R. W. Bemer, J. Green, and E. Lohse. Proposed American Standard: Bit Sequencing of the American Standard Code for Information Interchange (ASCII) in Serial-by-Bit Data Transmission. *Communications of the ACM*, 7(6):333–336, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1964:RCD**

- [GBGL64b] S. Gorn, R. W. Bemer, J. Green, and E. Lohse. report on CCITT data communications study group meeting. *Communications of the ACM*, 7(3):152, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gotlieb:1967:AFF**

- [GC67] C. G. Gotlieb and D. G. Corneil. Algorithms for finding a fundamental set of cycles for an undirected linear graph. *Communications of the ACM*, 10(12):780–783, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Gear:1965:HSC**

- [Gea65] C. W. Gear. High speed compilation of efficient object code. *Communications of the ACM*, 8(8):483–488, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gear:1966:NIO**

- [Gea66] C. W. Gear. Numerical integration in ordinary differential equations operating under ILLIAC II time-sharing system. *Communications of the ACM*, 9(7):475, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Geiger:1960:LE**

- [Gei60] Allen E. Geiger. Letters to the Editor. *Communications of the ACM*, 3(1):A7, January 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gentleman:1968:LEF**

- [Gen68] W. Morven Gentleman. Letter to the Editor: Further comment on the computation of least squares polynomials. *Communications of the ACM*, 11(2):73, February 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**George:1962:AMI**

- [Geo62a] Richard George. Algorithm 120: Matrix inversion II. *Communications of the ACM*, 5(8):437, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**George:1962:CAB**

- [Geo62b] Richard George. Certification of Algorithm 19: Binomial coefficients. *Communications of the ACM*, 5(8):438, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**George:1962:CAA**

- [Geo62c] Richard George. Certification of Algorithm 51: Adjust inverse of a matrix when an element is perturbed. *Communications of the ACM*, 5(7):391, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**George:1962:CAM**

- [Geo62d] Richard George. Certification of Algorithm 58: Matrix inversion. *Communications of the ACM*, 5(8):438–439, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**George:1962:CAG**

- [Geo62e] Richard George. Certification of Algorithm 93: General order arithmetic. *Communications of the ACM*, 5(10):514, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**George:1962:RAS**

- [Geo62f] Richard George. Remark on Algorithm 84: Simpson's integration. *Communications of the ACM*, 5(8):440, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**George:1963:ANR**

- [Geo63a] R. George. Algorithm 200: Normal random. *Communications of the ACM*, 6(8):444, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Pik65c].

**George:1963:AS**

- [Geo63b] Richard George. Algorithm 216: SMOOTH. *Communications of the ACM*, 6(11):663, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**George:1963:CAM**

- [Geo63c] Richard George. Certification of Algorithm 140: Matrix inversion. *Communications of the ACM*, 6(8):448, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**George:1963:CAA**

- [Geo63d] Richard George. Certification of Algorithm 47: Associated Legendre functions of the first kind for real or imaginary arguments. *Communications of the ACM*, 6(8):446, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**George:1963:RAF**

- [Geo63e] Richard George. Remark on Algorithm 157: Fourier series approximation. *Communications of the ACM*, 6(9):521–522, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1964:IEA**

- [GF64a] Benrard A. Galler and Michael J. Fisher. An improved equivalence algorithm. *Communications of the ACM*, 7(5):301–303, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1964:DEA**

- [GF64b] Bernard A. Galler and Michael J. Fischer. In defense of the equivalence algorithm. *Communications of the ACM*, 7(8):506, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1965:IE**

- [GF65] Bernard A. Galler and Michael J. Fischer. The iteration element. *Communications of the ACM*, 8(6):349, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galler:1968:LEP**

- [GF68] Bernard A. Galler and Aaron Finerman. Lettes to the editor: Proprietary packages: a point of view. *Communications of the ACM*, 11(12):802, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gosden:1963:RVD**

- [GGJ<sup>+</sup>63] John A. Gosden, Roger E. Gay, John L. Jones, Jack N. Merner, and Christopher J. Shaw. Report of a visit to discuss common programming languages in Czechoslovakia and Poland, 1963. *Communications of the ACM*, 6(11):



660–661, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Graham:1965:ALR**

- [GI65] Marvin Lowell Graham and Peter Zilahy Ingerman. An assembly language for reprogramming. *Communications of the ACM*, 8(12):769–772, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Originally appeared in ACM Reprogramming Conference, Princeton, Jun 1965.

**Gianni:1961:AT**

- [Gia61] A. J. Gianni. Algorithm 36: Tchebycheff. *Communications of the ACM*, 4(3):151, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Giammo:1962:ADE**

- [Gia62] Thomas P. Giammo. Algorithm 79: Difference expression coefficients. *Communications of the ACM*, 5(2):97, February 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gibb:1961:APR**

- [Gib61] Allan Gibb. Algorithm 61: Procedures for range arithmetic. *Communications of the ACM*, 4(7):319–320, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gibb:1963:APB**

- [Gib63] Allan Gibb. Algorithm 174: A posteriori bounds on a zero of a polynomial. *Communications of the ACM*,

6(6):311–312, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gerad:1965:MTA**

- [GIB65] J. M. Gerard, I. G. Izsak, and M. P. Barnett. Mechanization of tedious algebra: The Newcomb operators of planetary theory. *Communications of the ACM*, 8(1):27–32, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gilbert:1961:CAS**

- [Gil61] H. E. Gilbert. Certification of Algorithm 52: A set of test matrices. *Communications of the ACM*, 4(8):339, August 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gilchrist:1962:AMS**

- [Gil62] Bruce Gilchrist. ACM membership survey. *Communications of the ACM*, 5(6):297, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gilstad:1963:RBP**

- [Gil63] R. L. Gilstad. Read-backward polyphase sorting. *Communications of the ACM*, 6(5):220–223, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gillette:1966:SPM**

- [Gil66] Harold R. Gillette. A special purpose multiprogramming system for a computer-controlled telemetry data reduction system. *Communications of the ACM*, 9(7):482, July



1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Gin61] Seymour Ginsburg. Theory of abstract machines. *Communications of the ACM*, 4(4):195, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Giu67] Vincent E. Giuliano. Additional references. *Communications of the ACM*, 10(6):342, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Giv67] W. I. Givens. Letter to the Editor: a “subprofessional” comments. *Communications of the ACM*, 10(7):396, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Giv68] Wallace Givens. Letter to the Editor: proposed abbreviation for 1024: bK. *Communications of the ACM*, 11(6):391, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [GJ66] Martin Greenberger and Malcolm M. Jones. Online simulation in the OPS system. *Communications of the ACM*, 9(7):477, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [GK62] Stephen J. Garland and Anthony W. Knapp. Algorithm 99: Evaluation of Jacobi symbol. *Communications of the ACM*, 5(6):345–346, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [GK70] Walter Gautschi and Bruce J. Klein. Remark on Algorithm 282, Derivatives of  $e^x/x$ ,  $\cos(x)/x$ , and  $\sin(x)/x$ . *Communications of the ACM*, 13(1):53–54, January 1970. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Gau66a].
- [Gla66] R. D. Glautz. Partial step integration. *Communications of the ACM*, 9(7):521, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [GLC68] Ronald L. Gue, John C. Liggett, and Kenneth C. Cain. Analysis of algorithms for the zero-one programming problem. *Communications of the ACM*, 11(12):837–844, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Glo63] John B. Glore. Sorting nonredundant files — techniques used in the FACT compiler. *Communications of the ACM*, 6(5):231–240, May 1963. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Gluss:1962:FRL**

- [Glu62] Brian Gluss. Further remarks on line segment curve-fitting using dynamic programming. *Communications of the ACM*, 5(8):441–443, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gluss:1963:LSF**

- [Glu63] Brian Gluss. Least squares fitting of planes to surfaces using dynamic programming. *Communications of the ACM*, 6(4):172–175, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Garber:1964:CFF**

- [GM64] M. J. Garber and Conrad Mizumski. Curve fitting with format FORTRAN. *Communications of the ACM*, 7(12):721, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Guzman:1966:C**

- [GM66] Adolfo Guzmán and Harold V. McIntosh. CONVERT. *Communications of the ACM*, 9(8):604–615, August 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Galimberti:1969: AHL**

- [GM69] R. Galimberti and U. Montanari. An algorithm for hidden line elimination. *Communications of the ACM*, 12(4):206–211, April

1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Goetz:1963:DCV**

- [Goe63a] Martin A. Goetz. Design and characteristics of a variable-length record sort using new fixed-length record sorting techniques. *Communications of the ACM*, 6(5):264–267, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Goetz:1963:ITS**

- [Goe63b] Martin A. Goetz. Internal and tape sorting using the replacement-selection technique. *Communications of the ACM*, 6(5):201–206, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Goetz:1963:OSD**

- [Goe63c] Martin A. Goetz. Organization and structure of data on disk file memory systems for efficient sorting and other data processing programs. *Communications of the ACM*, 6(5):245–248, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Goetz:1964:LEM**

- [Goe64] Martin A. Goetz. Letter to the Editor: More on sorting techniques. *Communications of the ACM*, 7(6):379–380, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Goldfinger:1961:POP**

- [Gol61] Roy Goldfinger. Problem-oriented programming language structure. *Communications of the ACM*, 4(3):138, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Goldstein:1963:SAD**

- [Gol63] Max Goldstein. Significance arithmetic on a digital computer. *Communications of the ACM*, 6(3):111–117, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Golomb:1966:RP**

- [Gol66] Solomon W. Golomb. References to pentominoes. *Communications of the ACM*, 9(4):241, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Goldberg:1967:BED**

- [Gol67a] I. Bennett Goldberg. 27 bits are not enough for 8-digit accuracy. *Communications of the ACM*, 10(2):105–106, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Goldberg:1967:CLS**

- [Gol67b] Morton Goldberg. On the computation of least squares polynomials. *Communications of the ACM*, 10(1):56–57, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gold:1969:TSB**

- [Gol69] Michael M. Gold. Time-sharing and batch-processing. an experimental

comparison of their values in a problem-solving situation. *Communications of the ACM*, 12(5):249–259, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Goodenough:1965:LCP**

- [Goo65] John B. Goodenough. A lightpen-controlled program for online data analysis. *Communications of the ACM*, 8(2):130–134, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Good:1968:LEN**

- [Goo68] I. J. Good. Letter to the Editor: number of possible strategies when writing compilers. *Communications of the ACM*, 11(7):474, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1960:ABR**

- [Gor60] Saul Gorn. Algorithm 4: Bisection routine. *Communications of the ACM*, 3(3):174, March 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1961:SBT**

- [Gor61a] Saul Gorn. Some basic terminology connected with mechanical languages and their processors: a tentative base terminology presented to ASA x3.4 as a proposal for subsequent inclusion in a glossary. *Communications of the ACM*, 4(8):336–339, August 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Gorn:1961:SLM**

- [Gor61b] Saul Gorn. Specification languages for mechanical languages and their processors a baker's dozen: a set of examples presented to ASA x3.4 subcommittee. *Communications of the ACM*, 4(12):532–542, December 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1962:MPT**

- [Gor62a] Saul Gorn. Mechanical pragmatics: a time-motion study of a miniature mechanical linguistic system: a set of examples presented to ASA X3-4 subcommittee. *Communications of the ACM*, 5(12):576–589, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1962:TML**

- [Gor62b] Saul Gorn. Theory of mechanical languages. *Communications of the ACM*, 5(1):62, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gordon:1963:CLN**

- [Gor63a] Robert M. Gordon. Checking for loops in networks. *Communications of the ACM*, 6(7):384, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1963:SUN**

- [Gor63b] S. Gorn. Standards: USA NATIONAL ACTIVITY REPORT TO ISO/TC 97/Working Group E:

Computers and information processing (dated 27 September 1962). *Communications of the ACM*, 6(2):51, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1963:SSP**

- [Gor63c] S. Gorn. Structures of standards-processing organizations in the computer area. *Communications of the ACM*, 6(6):294–305, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1964:FVB**

- [Gor64a] S. Gorn. FORTRAN vs. Basic FORTRAN: a programming language for informational processing on automatic data processing systems. *Communications of the ACM*, 7(10):591–624, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1964:PAP**

- [Gor64b] S. Gorn. Proposed amendment to Proposed American Standard on Specification for General-Purpose Paper Cards for Information Processing. *Communications of the ACM*, 7(10):625, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1964:PASb**

- [Gor64c] S. Gorn. Proposed American Standard: Take-up Reels for One-Inch Perforated Tape for Information Interchange. *Communications of*



the *ACM*, 7(10):630–631, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1964:RIO**

- [Gor64d] S. Gorn. Report on input-output procedures for ALGOL 60. *Communications of the ACM*, 7(10):628–630, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1964:RSA**

- [Gor64e] S. Gorn. Report on SUBSET ALGOL 60 (IFIP). *Communications of the ACM*, 7(10):626–628, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1964:SR**

- [Gor64f] S. Gorn. Summary remarks. *Communications of the ACM*, 7(2):133–136, February 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1964:MLC**

- [Gor64g] Saul Gorn. Mechanical languages: a course specification. *Communications of the ACM*, 7(4):219–222, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gordon:1965:LEV**

- [Gor65a] R. M. Gordon. Letter to the Editor: views on technical meetings. *Communications of the ACM*, 8(9):542, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1965:CUS**

- [Gor65b] S. Gorn. Conventions for the use of symbols in the preparation of flowcharts for information processing systems. *Communications of the ACM*, 8(7):439–440, July 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1965:PSU**

- [Gor65c] S. Gorn. Performance of systems used for data transmission transfer rate of information bits—an ASA tutorial. *Communications of the ACM*, 8(5):280–286, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1965:PAS**

- [Gor65d] S. Gorn. Proposed American Standard—Character Set for Optical Character Recognition. *Communications of the ACM*, 8(1):18–26, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1965:TMC**

- [Gor65e] S. Gorn. Transparent-mode control procedures for data communication, using the American Standard Code for Information Interchange—a tutorial. *Communications of the ACM*, 8(4):203–206, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1966:CEA**

- [Gor66a] S. Gorn. Code extension in ASCII. *Communications of the ACM*, 9



(10):758–762, October 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1966:DSU**

- [Gor66b] S. Gorn. Description of systems used for data transmission. *Communications of the ACM*, 9(10):764–770, October 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1966:ESI**

- [Gor66c] S. Gorn. Eleven-sixteenths inch perforated paper tape. *Communications of the ACM*, 9(5):386–387, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1966:RMT**

- [Gor66d] S. Gorn. Recorded magnetic tape for information interchange (800 CPI, NRZI). *Communications of the ACM*, 9(4):285–292, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1966:RHT**

- [Gor66e] S. Gorn. Rectangular holes in twelve-row punched cards. *Communications of the ACM*, 9(10):763, October 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1966:TRP**

- [Gor66f] S. Gorn. Twelve-row punched-card code for information interchange. *Communications of the ACM*, 9(6):450–459, June 1966. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorn:1966:APA**

- [Gor66g] Saul Gorn. Advanced programming and the aims of standardization. *Communications of the ACM*, 9(3):232, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gorenstein:1967:TRN**

- [Gor67] Samuel Gorenstein. Testing a random number generator. *Communications of the ACM*, 10(2):111–118, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gosden:1965:LEY**

- [Gos65] John A. Gosden. Letter to the Editor: yet more on rounding in commercial applications. *Communications of the ACM*, 8(10):635, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gotlieb:1962:ICM**

- [Got62a] C. C. Gotlieb. IFIP-62: Council meetings-notes. *Communications of the ACM*, 5(10):500–501, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gotlieb:1962:TY**

- [Got62b] C. C. Gotlieb. Thank you. *Communications of the ACM*, 5(12):575, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



- [Got63] C. C. Gotlieb. Sorting on computers. *Communications of the ACM*, 6(5):194–201, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

[Got69] C. C. Gotlieb. Editorial: on the ACM publications. *Communications of the ACM*, 12(4):197–198, April 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

[GP62] Bernard A. Galler and Alan J. Perlis. Compiling matrix operations. *Communications of the ACM*, 5(12):590–594, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

[GP64] I. Gargantini and T. Pomentale. Rational Chebyshev approximations to the Bessel function integrals  $K_i(x)$ . *Communications of the ACM*, 7(12):727–730, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

[GP65] T. V. Griffiths and S. R. Petrick. On the relative efficiencies of context-free grammar recognizers. *Communications of the ACM*, 8(5):289–300, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Gri65b].

[GP66] B. A. Galler and A. J. Perlis. A proposal for definitions in ALGOL. *Communications of the ACM*, 9(7):481–482, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

[GP67] B. A. Galler and A. J. Perlis. A proposal for definitions in ALGOL. *Communications of the ACM*, 10(4):204–219, April 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

[GPHO62] David Garfinkel, William Polk, Joseph J. Higgins, and Robert T. Ochser. Simulation and analysis of biochemical systems: III. analysis and pattern recognition. *Communications of the ACM*, 5(2):115–118, February 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

[GPW65] D. Gries, M. Paul, and H. R. Wiehle. Some techniques used in the ALCOR ILLINOIS 7090. *Communications of the ACM*, 8(8):496–500, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

[GR64] Robert T. Gregory and James L. Raney. Floating-point arithmetic with 84-bit numbers. *Communications of the ACM*, 7(1):10–13, January 1964. CODEN CACMA2.



ISSN 0001-0782 (print), 1557-7317 (electronic). See [Ike65] for extension to triple precision.

**Golub:1967:GBA**

- [GR67] G. H. Golub and T. N. Robertson. A generalized Bairstow algorithm. *Communications of the ACM*, 10(6):371–373, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Griffin:1970:RME**

- [GR70] R. Griffin and K. A. Redich. Remark on “Algorithm 347: An Efficient Algorithm for Sorting with Minimal Storage [M1], by R. C. Singleton”. *Communications of the ACM*, 13(1):54, January 1970. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Sin69b, Pet70].

**Grau:1960:ASP**

- [Gra60] A. A. Grau. Algorithm 3: Solution of polynomial equation by Bairstow–Hitchcock method. *Communications of the ACM*, 3(2):74–75, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Grau:1961:RPA**

- [Gra61a] A. A. Grau. Recursive processes and ALGOL translation. *Communications of the ACM*, 4(1):10–15, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gray:1961:BFI**

- [Gra61b] Marion C. Gray. Bessel functions of integral order and complex ar-

gument. *Communications of the ACM*, 4(4):169, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Grau:1962:FPN**

- [Gra62] A. A. Grau. On a floating-point number representation for use with algorithmic languages. *Communications of the ACM*, 5(3):160–161, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gray:1963:AFD**

- [Gra63a] Malcolm D. Gray. Algorithm 212: Frequency distribution. *Communications of the ACM*, 6(10):617, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gray:1963:AFI**

- [Gra63b] Malcolm D. Gray. Algorithm 213: Fresnel integrals. *Communications of the ACM*, 6(10):617, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gray:1963:RAE**

- [Gra63c] Malcolm D. Gray. Remark on algorithms 88, 89, and 90 evaluation of the Fresnel integrals. *Communications of the ACM*, 6(10):618, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gray:1964:CAF**

- [Gra64] Malcolm Gray. Certification of Algorithm 213: Fresnel integrals. *Communications of the ACM*, 7



(11):661, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Grau:1965:AMG**

- [Gra65] A. A. Grau. Algorithm 256: Modified Graeffe method [C2]. *Communications of the ACM*, 8(6):379–380, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Graham:1968:PIP**

- [Gra68] Robert M. Graham. Protection in an information processing utility. *Communications of the ACM*, 11(5):365–369, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gray:1969:RAG**

- [Gra69] M. Gray. Remark on Algorithm 329 [G6]: Distribution of indistinguishable objects into distinguishable slots. *Communications of the ACM*, 12(3):187, March 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Greenwald:1959:THM**

- [Gre59] Irwin D. Greenwald. A technique for handling macro instructions. *Communications of the ACM*, 2(11):21–22, November 1959. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See corrigendum [Ano60a].

**Green:1960:SMX**

- [Gre60a] Julien Green. Symbol manipulation in XTRAN. *Communications of the ACM*, 3(4):213–214, 1960. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Grems:1960:LES**

- [Gre60b] Mandalay Grems. Letter to the Editor: Share standard flow chart symbols. *Communications of the ACM*, 3(3):174–175, March 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Grems:1961:CFR**

- [Gre61a] Mandalay Grems. A card format for reference files in information processing. *Communications of the ACM*, 4(2):90–98, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Grems:1961:GCD**

- [Gre61b] Mandalay Grems. Glossaries for computing and data processing. *Communications of the ACM*, 4(7):323–324, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Greene:1962:GTC**

- [Gre62a] I. Greene. Guides to teaching COBOL. *Communications of the ACM*, 5(5):272–273, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Grems:1962:SLS**

- [Gre62b] Mandalay Grems. A survey of languages and systems for information retrieval. *Communications of the ACM*, 5(1):43–46, January 1962. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Grench:1962:CAC**

- [Gre62c] R. E. Grench. Certification of Algorithm 94: Combination. *Communications of the ACM*, 5(12):606, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Grems:1963:GC**

- [Gre63a] Mandalay Grems. Glossary construction. *Communications of the ACM*, 6(2):64–65, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Grems:1963:PTF**

- [Gre63b] Mandalay Grems. Pracniques: Terms frequently combined in problem description. *Communications of the ACM*, 6(1):31, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Green:1964:TST**

- [Gre64a] L. E. S. Green. Time sharing in a traffic control program. *Communications of the ACM*, 7(11):678–681, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Greenspan:1964:ASA**

- [Gre64b] Donald Greenspan. Approximate solution of axially symmetric problems. *Communications of the ACM*, 7(6):373–377, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Greibach:1964:FPS**

- [Gre64c] Sheila A. Greibach. Formal parsing systems. *Communications of the ACM*, 7(8):499–504, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Greenberger:1965:MR**

- [Gre65a] Martin Greenberger. Method in randomness. *Communications of the ACM*, 8(3):177–179, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Greibach:1965:LAC**

- [Gre65b] Sheila Greibach. Language and automata colloquium in Jerusalem. *Communications of the ACM*, 8(1):73–74, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Green:1966:MEP**

- [Gre66a] Julien Green. Microprogramming, emulators and programming languages. *Communications of the ACM*, 9(3):230–232, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Greenberger:1966:CSO**

- [Gre66b] Martin Greenberger. Computer simulation: organization and form. *Communications of the ACM*, 9(7):477, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Green:1968:AAT**

- [Gre68a] David R. Green. Algorithm 319: Triangular factors of modified matrices [F1]. *Communications of the ACM*, 11(1):12, January 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Greenspan:1968:ASI**

- [Gre68b] Donald Greenspan. Approximate solution of initial-boundary wave equation problems by boundary-value techniques. *Communications of the ACM*, 11(11):760–763, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Garfinkel:1961:MAS**

- [GRH61] David Garfinkel, Joseph D. Rutledge, and Joseph J. Higgins. Medical applications: Simulation and analysis of biochemical systems: I. representation of chemical kinetics. *Communications of the ACM*, 4(12):559–562, December 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Griebrook:1964:DTB**

- [Gri64] Mavis Griebrook. Decimal tables to binary coded tables. *Communications of the ACM*, 7(4):242–243, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Griffiths:1965:LEP**

- [Gri65a] T. V. Griffiths. Letter to the Editor: on procedures for constructing structural descriptions for three

parsing algorithms. *Communications of the ACM*, 8(10):594, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Griffiths:1965:PCS**

- [Gri65b] T. V. Griffiths. On procedures for constructing structural descriptions for three parsing algorithms. *Communications of the ACM*, 8(10):594, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Letter to the editor.

**Griffith:1966:RCP**

- [Gri66] B. A. Griffith. Remarks on computer program for the construction of school timetables. *Communications of the ACM*, 9(1):35, January 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gries:1968:UTM**

- [Gri68] David Gries. Use of transition matrices in compiling. *Communications of the ACM*, 11(1):26–34, January 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gross:1963:CCL**

- [Gro63] Leonard D. Gross. Coding clinical laboratory data for automatic storage and retrieval. *Communications of the ACM*, 6(11):690–694, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Grochow:1969:LEA**

- [Gro69a] Jerrold M. Grochow. Letter to the Editor: "ACM has a tremendous story to tell". *Communications of the ACM*, 12(6):302, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Grosenbaugh:1969:MFR**

- [Gro69b] L. R. Grosenbaugh. More on Fortran random number generators. *Communications of the ACM*, 12(11):639, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gruenberger:1960:TP**

- [Gru60] Fred Gruenberger. A terminology proposal. *Communications of the ACM*, 3(2):72, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gruenberger:1962:UNC**

- [Gru62] Fred Gruenberger. Use of newer character-addressable machines for high precision. *Communications of the ACM*, 5(4):221, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gruenberger:1964:CNA**

- [Gru64] Fred Gruenberger. Change the name of ACM? Never! *Communications of the ACM*, 7(11):682, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Geisler:1961:MSR**

- [GS61a] M. A. Geisler and W. A. Steger. Manned simulation research in complex control systems. *Communications of the ACM*, 4(7):323, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Graham:1961:PMT**

- [GS61b] J. W. Graham and D. A. Sprott. Processing magnetic tape files with variable blocks. *Communications of the ACM*, 4(12):555–557, December 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Grems:1961:LES**

- [GS61c] Mandalay Grems and Thomas G. Sanborn. Letter to the Editor: standards conventions. *Communications of the ACM*, 4(9):365–366, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gass:1962:NAM**

- [GS62] Saul I. Gass and Joseph K. Slap. National ACM membership survey. *Communications of the ACM*, 5(9):470–472, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Grau:1960:CSP**

- [GT60] A. A. Grau and H. C. Thacher, Jr. Certification: solution of polynomial equation by Bairstow-Hitchcock method. *Communications of the ACM*, 3(6):354, June 1960. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Goetz:1963:CBP**

- [GT63a] Martin A. Goetz and Gloria S. Toth. A comparison between the polyphase and oscillating sort techniques. *Communications of the ACM*, 6(5):223–225, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Greniewski:1963:ELK**

- [GT63b] Marek Greniewski and Wladyslaw Turski. The external language KLIPA for the URAL-2 digital computer. *Communications of the ACM*, 6(6):321–324, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Early work on derivation of hash functions.

**Gunn:1965:AZV**

- [Gun65a] J. H. Gunn. Algorithm 252 [Z]: Vector coupling or Clebsch–Gordan coefficients. *Communications of the ACM*, 8(4):217, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gunn:1965:ASa**

- [Gun65b] J. H. Gunn. Algorithm 260: 6-*J* symbols. *Communications of the ACM*, 8(8):492, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gunn:1965:ASb**

- [Gun65c] J. H. Gunn. Algorithm 261: 9-*J* symbols. *Communications of the ACM*, 8(8):492–493, August

1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Gunn:1967:ACW**

- [Gun67] J. H. Gunn. Algorithm 300: Coulomb wave functions. *Communications of the ACM*, 10(4):244–245, April 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [Vos73].

**Gurzi:1960:HSM**

- [Gur60] Fred Gurzi. A high-speed multiplication process for digital computers. *Communications of the ACM*, 3(4):241–245, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Goodwin:1964:PS**

- [GV64] D. T. Goodwin and J. L. Venn. On polyphase sort. *Communications of the ACM*, 7(5):315, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Greenspan:1963:AS**

- [GY63] D. Greenspan and M. Yohe. On the approximate solution of  $\Delta(u) = F(u)$ . *Communications of the ACM*, 6(9):564–568, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hall:1967:SUC**

- [HA67] Andrew D. Hall, Jr. and Forman S. Action. Scheduling university course examinations by computer. *Communications of the ACM*, 10(4):235–238, April 1967. CODEN



CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Haag:1965:LEM**

- [Haa65] James N. Haag. Letter to the Editor: more suggestions for ALGOL 60. *Communications of the ACM*, 8(6):347, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Letter to the editor.

**Habermann:1969:PSD**

- [Hab69] A. N. Habermann. Prevention of system deadlocks. *Communications of the ACM*, 12(7):373–377, 385, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hacker:1962:CAP**

- [Hac62] Richard Hacker. Certification of Algorithm 112: Position of point relative to polygon. *Communications of the ACM*, 5(12):606, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hajek:1963:AA**

- [Háj63] Otomar Hájek. Algorithm 173: Assign. *Communications of the ACM*, 6(6):311, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Halstead:1962:CAR**

- [Hal62] M. H. Halstead. Certification of Algorithm 78: Ratfact. *Communications of the ACM*, 5(3):168, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hale:1963:CAC**

- [Hal63a] Robert P. Hale. Certification of Algorithm 91: Chebyshev curve-fit. *Communications of the ACM*, 6(4):167, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hall:1963:MCT**

- [Hal63b] Michael H. Hall. A method of comparing the time requirements of sorting methods. *Communications of the ACM*, 6(5):259–263, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Halstead:1963:N**

- [Hal63c] M. H. Halstead. NELIAC. *Communications of the ACM*, 6(3):91–92, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Halton:1964:ARI**

- [Hal64] J. H. Halton. Algorithm 247: Radical-inverse quasi-random point sequence. *Communications of the ACM*, 7(12):701–702, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Halpern:1965:MIT**

- [Hal65] Mark I. Halpern. Machine independence: Its technology and economics. *Communications of the ACM*, 8(12):782–785, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Originally appeared in ACM Reprogramming Conference, Princeton, Jun 1965.



**Halpern:1966:SPS**

- [Hal66] Mark Halpern. Symbolic processing of source language programs. *Communications of the ACM*, 9(7):480, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Halpern:1968:PLT**

- [Hal68] Mark I. Halpern. Programming languages: Toward a general processor for programming languages. *Communications of the ACM*, 11(1):15–25, January 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hall:1969:EBP**

- [Hal69] Charles Allan Hall. Error bounds for periodic quintic splines. *Communications of the ACM*, 12(8):450–452, August 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hamlin:1964:CPP**

- [Ham64] Kenneth B. Hamlin. Computer programs are patentable. *Communications of the ACM*, 7(10):581–582, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hamburger:1966:AMS**

- [Ham66a] Paul Hamburger. On an automated method of symbolically analyzing times of computer programs. *Communications of the ACM*, 9(7):481, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hammel:1966:EEP**

- [Ham66b] David G. Hammel. An economical electronic point-of-sale/ updating system. *Communications of the ACM*, 9(7):478, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hamming:1966:SNA**

- [Ham66c] R. W. Hamming. Statistics in numerical analysis. *Communications of the ACM*, 9(7):482, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hamp:1967:WMP**

- [Ham67] Eric P. Hamp. What are the most promising avenues of approach to attaining MT? *Communications of the ACM*, 10(10):609–610, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hamblen:1968:EES**

- [Ham68] John W. Hamblen. Education: Expenditures, sources of funds, and utilization of digital computers for research and instruction in higher education: 1964–65 with projections for 1968–69. *Communications of the ACM*, 11(4):257–262, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Handy:1962:AA**

- [Han62] B. F. Handy, Jr. ACM 61 acknowledgements. *Communications of the*



*ACM*, 5(1):7, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Handler:1966:DTP**

- [Hän66a] W. Händler. On displaying the topological properties of a program. *Communications of the ACM*, 9(2):59, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hansson:1966:RAG**

- [Han66b] L. Hansson. Remark on Algorithm 266 [G5]: Pseudo-random numbers. *Communications of the ACM*, 9(9):687, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [PH65], remark [PH66b], and certification [Sul72].

**Hansen:1969:CLR**

- [Han69] Wilfred J. Hansen. Compact list representation: Definition, garbage collection, and system implementation. *Communications of the ACM*, 12(9):499–507, September 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Harrison:1965:FHW**

- [Har65a] Malcolm C. Harrison. File-handling within FORTRAN. *Communications of the ACM*, 8(8):514–515, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Harrison:1965:LEF**

- [Har65b] Malcolm C. Harrison. Letter to the Editor: Fortran II chaining.

*Communications of the ACM*, 8(5):262, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Harder:1968:EWC**

- [Har68a] E. L. Harder. The expanding world of computers. *Communications of the ACM*, 11(4):231–239, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Harrison:1968:IST**

- [Har68b] M. C. Harrison. Implementation of the SHARER2 time-sharing system. *Communications of the ACM*, 11(12):845, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [HS67].

**Hassitt:1964:DIG**

- [Has64] A. Hassitt. Design and implementation of a general-purpose input routine. *Communications of the ACM*, 7(6):350–356, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hassitt:1967:DDI**

- [Has67] A. Hassitt. Data directed input-output in FORTRAN. *Communications of the ACM*, 10(1):35–39, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Haubrich:1963:AA**

- [Hau63a] J. G. A. Haubrich. Algorithm 205: ATIVE. *Communications of the ACM*, 6(9):519, September 1963. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Hauer:1963:OLX**

- [Hau63b] Herbert J. Hauer. An open letter to X3.42. *Communications of the ACM*, 6(9):A15, 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hauptman:1964:JIC**

- [Hau64] Gunter A. Hauptman. Joint inventorship of computers. *Communications of the ACM*, 7(10):579–580, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Haynes:1962:RSG**

- [Hay62] John G. Haynes. Research summaries: A generalized combinatorial problem. *Communications of the ACM*, 5(8):449, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hayes:1966:DSM**

- [Hay66a] Emanuel Hayes. A digital simulation model of a freeway diamond interchange. *Communications of the ACM*, 9(7):477, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hayes:1966:IR**

- [Hay66b] Robert M. Hayes. Information retrieval. *Communications of the ACM*, 9(7):483, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herrick:1962:CVW**

- [HB62] Daniel Herrick and Neal Butler. Computation of  $e$  on variable word length machine. *Communications of the ACM*, 5(9):469, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Healy:1963:FST**

- [HB63] M. J. R. Healy and B. P. Bogert. FORTRAN subroutines for time series analysis. *Communications of the ACM*, 6(1):32–34, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Humphery:1966:ARI**

- [HB66] Allan J. Humphery and Shelby L. Brumelle. An algorithm for retrieving indexed documents and its application. *Communications of the ACM*, 9(7):483, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hamilton:1969:RAE**

- [HB69] P. A. Hamilton and J. Boothroyd. Remark on Algorithm 251 [E4]: Function minimization. *Communications of the ACM*, 12(9):512–513, September 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hanson:1962:ADC**

- [HCJ62] James W. Hanson, Jane Shearin Caviness, and Camilla Joseph. Analytic differentiation by computer. *Communications of the ACM*, 5(6):349–355, June 1962. CODEN



CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hayashi:1968:CLG**

- [HDK68] Hideyuki Hayashi, Sheila Duncan, and Susumu Kuno. Computational linguistics: Graphical input/output of nonstandard characters. *Communications of the ACM*, 11(9):613–618, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Head:1963:RTP**

- [Hea63] R. V. Head. Real-time programming specifications. *Communications of the ACM*, 6(7):376–383, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Healy:1964:ANN**

- [Hea64] M. J. R. Healy. ALGOL note: Note on the use of procedures. *Communications of the ACM*, 7(12):735, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Head:1966:BIS**

- [Hea66a] Robert V. Head. The banking information system concept. *Communications of the ACM*, 9(7):491–496, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Head:1966:DPM**

- [Hea66b] Robert V. Head. Dribble posting a master file. *Communications of the ACM*, 9(2):106–107, February 1966. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic).

**Hearn:1966:CAP**

- [Hea66c] A. C. Hearn. Computation of algebraic properties of elementary particle reactions using a digital computer. *Communications of the ACM*, 9(8):573–577, August 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Heising:1963:F**

- [Hei63] W. P. Heising. Fortran. *Communications of the ACM*, 6(3):85–86, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Heising:1964:HSF**

- [Hei64a] W. P. Heising. History and summary of FORTRAN standardization development for the ASA. *Communications of the ACM*, 7(10):590, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also final standard [Ame66].

**Heistand:1964:ESI**

- [Hei64b] Roy E. Heistand. An executive system implemented as a finite-state automaton. *Communications of the ACM*, 7(11):669–677, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hellberg:1962:CAC**

- [Hel62a] Lars Hellberg. Certification of Algorithm 40: Critical path scheduling. *Communications of the ACM*,



5(10):513, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hellerman:1962:AMA**

- [Hel62b] H. Hellerman. Addressing multidimensional arrays. *Communications of the ACM*, 5(4):205–207, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hellerman:1964:EPA**

- [Hel64] H. Hellerman. Experimental personalized array translator system. *Communications of the ACM*, 7(7):433–438, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hemmerle:1969:GPN**

- [Hem69] W. J. Hemmerle. Generating pseudorandom numbers on a two's complement machine such as the IBM 360. *Communications of the ACM*, 12(7):382–383, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hennion:1962:AID**

- [Hen62a] Paul E. Hennion. Algorithm 77: Interpolation, differentiation, and integration. *Communications of the ACM*, 5(2):96, February 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hennion:1962:ASI**

- [Hen62b] Paul E. Hennion. Algorithm 84: Simpson's integration. *Communications of the ACM*, 5(4):208, April 1962. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic).

**Hennion:1963:RAR**

- [Hen63a] P. E. Hennion. Remark on Algorithm 170: Reduction of a matrix containing polynomial elements. *Communications of the ACM*, 6(8):450, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hennion:1963:RAIa**

- [Hen63b] P. E. Hennion. Remark on Algorithm 77: Interpolation, differentiation, and integration. *Communications of the ACM*, 6(8):446–447, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hennion:1963:RAIb**

- [Hen63c] P. E. Hennion. Remark on Algorithm 77: Interpolation, differentiation, and integration. *Communications of the ACM*, 6(11):663, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hennion:1963:ARM**

- [Hen63d] Paul E. Hennion. Algorithm 170: Reduction of a matrix containing polynomial elements. *Communications of the ACM*, 6(4):165–166, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Henderson:1966:FDG**

- [Hen66a] Vilas D. Henderson. Functional design of a generalized vehicle flight



simulation program. *Communications of the ACM*, 9(7):477, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Henrici:1966:LEC**

- [Hen66b] Peter Henrici. Letter to the Editor: Corrections to numerical data on Q-D algorithm. *Communications of the ACM*, 9(5):323, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [HW65, Tho66].

**Henrici:1966:TPM**

- [Hen66c] Peter Henrici. Test of probabilistic models for the propagation of roundoff errors. *Communications of the ACM*, 9(6):409–410, June 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herbold:1960:AQ**

- [Her60a] R. J. Herbold. Algorithm 1: Quad I. *Communications of the ACM*, 3(2):74, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herriot:1960:ARI**

- [Her60b] John G. Herriot. Algorithm 26: Rootfinder III. *Communications of the ACM*, 3(11):603, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:ASN**

- [Her61a] J. R. Herndon. Algorithm 49: Spherical Neumann function. *Communications of the ACM*, 4(4):179,

April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Col78].

**Herndon:1961:CAC**

- [Her61b] John Herndon. Certification of Algorithm 10: Chebyshev polynomial  $T_n$ . *Communications of the ACM*, 4(4):181, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:CAL**

- [Her61c] John Herndon. Certification of Algorithm 13: Legendre polynomial  $P_n(x)$ . *Communications of the ACM*, 4(4):181, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:CAS**

- [Her61d] John Herndon. Certification of Algorithm 3: Solution of polynomial equation by Bairstow–Hitchcock. *Communications of the ACM*, 4(4):181, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:AEC**

- [Her61e] John R. Herndon. Algorithm 46: Exponential of a complex number. *Communications of the ACM*, 4(4):178, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:AAL**

- [Her61f] John R. Herndon. Algorithm 47: Associated Legendre functions of the first kind for real or imaginary arguments. *Communications of the ACM*, 4(4):178–179, April



1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:ALC**

- [Her61g] John R. Herndon. Algorithm 48: Logarithm of a complex number. *Communications of the ACM*, 4(4):179, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:AIF**

- [Her61h] John R. Herndon. Algorithm 50: Inverse of a finite segment of the Hilbert matrix. *Communications of the ACM*, 4(4):179, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:AAI**

- [Her61i] John R. Herndon. Algorithm 51: Adjust inverse of a matrix when an element is perturbed. *Communications of the ACM*, 4(4):180, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:AST**

- [Her61j] John R. Herndon. Algorithm 52: A set of test matrices. *Communications of the ACM*, 4(4):180, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:ARC**

- [Her61k] John R. Herndon. Algorithm 53:  $N^{\text{th}}$  roots of a complex number. *Communications of the ACM*, 4(4):180, April 1961. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:AGF**

- [Her61l] John R. Herndon. Algorithm 54: Gamma function for range 1 to 2. *Communications of the ACM*, 4(4):180, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:ACEa**

- [Her61m] John R. Herndon. Algorithm 55: Complete elliptic integral of the first kind. *Communications of the ACM*, 4(4):180, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:ACEb**

- [Her61n] John R. Herndon. Algorithm 56: Complete elliptic integral of the second kind. *Communications of the ACM*, 4(4):180–181, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:ABF**

- [Her61o] John R. Herndon. Algorithm 57: Ber or Bei function. *Communications of the ACM*, 4(4):181, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:ASA**

- [Her61p] John R. Herndon. Algorithm 62: A set of associate Legendre polynomials of the second kind. *Communications of the ACM*, 4(7):320–321, July 1961. CODEN CACMA2.



ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herndon:1961:RAS**

- [Her61q] John R. Herndon. Remark on Algorithm 62: A set of associate Legendre polynomials of the second kind. *Communications of the ACM*, 4(12):544, December 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hershkowitz:1961:LEN**

- [Her61r] M. Hershkowitz. Letter to the Editor: negative binomial probability distribution tables. *Communications of the ACM*, 4(6):252, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hershkowitz:1961:LEG**

- [Her61s] Martin Hershkowitz. Letter to the Editor: a goodness of fit test. *Communications of the ACM*, 4(10):465, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herriot:1966:FAA**

- [Her66] J. G. Herriot. A forum on algorithms: Algorithms section policy. *Communications of the ACM*, 9(4):256, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herman:1968:SOA**

- [Her68] Gabor T. Herman. Simulation of one abstract computing machine by another. *Communications of the ACM*, 11(12):802, December 1968. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic).

**Herriot:1969:ADA**

- [Her69a] John G. Herriot. An ambiguity in the description of ALGOL 60. *Communications of the ACM*, 12(10):581, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Herriot:1969:ACP**

- [Her69b] Robert G. Herriot. Algorithm 364: Coloring polygonal regions [Z]. *Communications of the ACM*, 12(12):685–686, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hess:1963:CDT**

- [Hes63] Herman Hess. A comparison of disks and tapes. *Communications of the ACM*, 6(10):634–638, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Heller:1960:LE**

- [HGT60] George G. Heller, Irwin Greenwald, and Charles W. Turk. Letters to the Editor. *Communications of the ACM*, 3(5):A12, May 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1960:NDA**

- [HHM60] Harry D. Huskey, M. H. Halstead, and R. McArthur. NELIAC—a dialect of ALGOL. *Communications of the ACM*, 3(8):463–468, August 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Hibbard:1961:TPP**

- [Hib61] T. N. Hibbard. Theory of programmed processes. *Communications of the ACM*, 4(4):195, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hibbard:1963:ESM**

- [Hib63] Thomas N. Hibbard. An empirical study of minimal-storage sorting. *Communications of the ACM*, 6(5):206–213, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hicks:1962:CLK**

- [Hic62] W. Hicks. The COBOL librarian: a key to object program efficiency. *Communications of the ACM*, 5(5):262, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hillmore:1962:CASb**

- [Hil62a] J. S. Hillmore. Certification of Algorithm 35: Sieve. *Communications of the ACM*, 5(8):438, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hillmore:1962:CASa**

- [Hil62b] J. S. Hillmore. Certification of Algorithm 52: A set of test matrices. *Communications of the ACM*, 5(8):438, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hillmore:1962:CAPb**

- [Hil62c] J. S. Hillmore. Certification of Algorithm 71: Permutation. *Communications of the ACM*, 5(8):439, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hillmore:1962:CAF**

- [Hil62d] J. S. Hillmore. Certification of Algorithm 75: Factors. *Communications of the ACM*, 5(8):439, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hillmore:1962:CAJ**

- [Hil62e] J. S. Hillmore. Certification of Algorithm 85: Jacobi. *Communications of the ACM*, 5(8):440, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hillmore:1962:CAPa**

- [Hil62f] J. S. Hillmore. Certification of Algorithms 63, 64, 65 — partition, quicksort, find. *Communications of the ACM*, 5(8):439, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hillstrom:1966:CAH**

- [Hil66] Kenneth Hillstrom. Certification of Algorithm 257: Havie integrator. *Communications of the ACM*, 9(11):795, November 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Hillstrom:1967:CAC**

- [Hil67a] Kenneth Hillstrom. Certification of Algorithm 279: Chebyshev quadrature. *Communications of the ACM*, 10(5):294, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hillstrom:1967:CQ**

- [Hil67b] Kenneth Hillstrom. Chebyshev quadrature. *Communications of the ACM*, 10(10):666, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hill:1969:RAG**

- [Hil69] I. D. Hill. Remark on Algorithm 331: Gaussian quadrature formulas [D1]. *Communications of the ACM*, 12(5):280–281, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hill:1967:ANCa**

- [HJ67a] I. D. Hill and S. A. Joyce. Algorithm 304: Normal curve integral. *Communications of the ACM*, 10(6):374–375, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remarks [HJ67b, Ber68b].

**Hill:1967:RAS**

- [HJ67b] I. D. Hill and S. A. Joyce. Remarks on Algorithm 123 [S15]: Real error function,  $\text{ERF}(x)$ ; Algorithm 180 [S15]: Error function — large  $X$ ; Algorithm 181 [S15]: Complementary error function — large  $X$ ; Algorithm 209 [S15]: Gauss; Algorithm 226 [S15]: Normal distribution function; Algorithm 272 [S15]:

Procedure for the normal distribution functions; Algorithm 304 [S15]: Normal curve integral. *Communications of the ACM*, 10(6):377–378, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Cyv64a, Mac65, HJ67a].

**Holgersen:1966:LOC**

- [HKM66] I. Holgersen, E. Knutson, and D. R. Merrill. Lunar orbiter command and telemetry data handling system (CTDH) at deep space stations. *Communications of the ACM*, 9(7):482, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Henderson:1968:RAN**

- [HKV68] J. H. Henderson, R. M. Knapp, and M. E. Volberding. Remark on Algorithm 248: Netflow. *Communications of the ACM*, 11(9):633, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Bri65, BW68c].

**Heising:1961:SAS**

- [HL61] William P. Heising and Ray A. Lerner. A semi-automatic storage allocation system at loading time. *Communications of the ACM*, 4(10):446–449, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hafley:1962:ATR**

- [HL62] W. L. Hafley and J. S. Lewis. Algorithm 142: Triangular regression. *Communications of the ACM*, 5



(12):603–604, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Heiner:1966:GRE**

- [HL66a] Joseph A. Heiner, Jr. and Reed O. Leishman. A generalized random extract device. *Communications of the ACM*, 9(7):481, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hopgood:1966:ACQ**

- [HL66b] F. R. A. Hopgood and C. Litherland. Algorithm 279: Chebyshev quadrature. *Communications of the ACM*, 9(4):270, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hopgood:1966:RAC**

- [HL66c] F. R. A. Hopgood and C. Litherland. Remark on Algorithm 279: Chebyshev quadrature. *Communications of the ACM*, 9(6):434, June 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1963:SDB**

- [HLW63] H. D. Huskey, Ralph Love, and Niklaus Wirth. A syntactic description of BC NELIAC. *Communications of the ACM*, 6(7):367–375, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hellerman:1961:ACG**

- [HO61a] L. Hellerman and S. Ogden. Algorithm 72: Composition generator. *Communications of the ACM*,

4(11):498, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hoffman:1961:UMP**

- [HO61b] Joyce Hoffman and Ascher Opler. Use of MOBL in preparing retrieval programs. *Communications of the ACM*, 4(9):389–391, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hoare:1961:AP**

- [Hoa61a] C. A. R. Hoare. Algorithm 63: Partition. *Communications of the ACM*, 4(7):321, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hoare:1961:AQ**

- [Hoa61b] C. A. R. Hoare. Algorithm 64: Quicksort. *Communications of the ACM*, 4(7):321, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hoare:1961:AF**

- [Hoa61c] C. A. R. Hoare. Algorithm 65: Find. *Communications of the ACM*, 4(7):321–322, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hoare:1968:RAL**

- [Hoa68] M. R. Hoare. Remark on Algorithm 291 [S14]: Logarithm of gamma function. *Communications of the ACM*, 11(1):14, January 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Hoare:1969:ABC**

- [Hoa69] C. A. R. Hoare. An axiomatic basis for computer programming. *Communications of the ACM*, 12(10): 576–580, 583, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Holmgren:1973:RAM**

- [HOK73] B. Holmgren, D. Obradović, and Å. Kolm. Remark on “Algorithm 333: Minit algorithm for linear programming”. *Communications of the ACM*, 16(5):310, May 1973. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [SS68, Obr73].

**Hollingsworth:1960:AGP**

- [Hol60a] Jack Hollingsworth. Automatic graders for programming classes. *Communications of the ACM*, 3(10):528–529, October 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Holmstrom:1960:MTP**

- [Hol60b] J. E. Holmstrom. The multilingual terminology project. *Communications of the ACM*, 3(7):409–412, July 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Holt:1960:ACC**

- [Hol60c] Anatol Holt. Over all computation control and labelling. *Communications of the ACM*, 3(11): 614–615, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Holt:1961:POR**

- [Hol61] Anatol W. Holt. Program organization and record keeping for dynamic storage allocation. *Communications of the ACM*, 4(10): 422–431, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Holsten:1962:ARG**

- [Hol62] William Holsten. Algorithm 80: Reciprocal gamma function of real argument. *Communications of the ACM*, 5(3):166, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Holt:1964:NSN**

- [Hol64] James F. Holt. Numerical solution of nonlinear two-point boundary problems by finite difference methods. *Communications of the ACM*, 7(6):366–373, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Homer:1966:ASS**

- [Hom66] Eugene D. Homer. An algorithm for selecting and sequencing statements as a basis for a problem-oriented programming system. *Communications of the ACM*, 9(7):480, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hooker:1969:ELS**

- [Hoo69] William W. Hooker. On the expected lengths of sequences generated in sorting by replacement selecting. *Communications of the ACM*, 12(7):411–413, July



1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hopley:1963:ANa**

- [Hop63a] John Hopley. Algorithm 152: NEXCOM. *Communications of the ACM*, 6(2):68, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Hop63b].

**Hopley:1963:ANb**

- [Hop63b] John Hopley. Algorithm 152: Nexcom. *Communications of the ACM*, 6(7):385, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Hop63a]. Editor's note: Algorithm 152 is printed here as it should have appeared.

**Hormann:1961:CLH**

- [Hor61] Aiko Hormann. Computer languages for heuristic processes. *Communications of the ACM*, 4(3):138, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hornbuckle:1967:MMS**

- [Hor67] Gary D. Hornbuckle. A multi-programming monitor for small machines. *Communications of the ACM*, 10(5):273–278, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Howell:1962:APG**

- [How62a] John R. Howell. Algorithm 87: Permutation generator. *Communications of the ACM*, 5(4):209, April

1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Howell:1962:PCT**

- [How62b] John R. Howell. Pracniques: A computer technique for handling analysis of variance. *Communications of the ACM*, 5(8):433, 449, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Howard:1967:CFE**

- [How67] James C. Howard. Computer formulation of the equations of motion using tensor notation. *Communications of the ACM*, 10(9):543–548, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Howland:1968:LEP**

- [How68a] John E. Howland. Letter to the Editor: On practicality of sieving techniques vs. the sieving algorithm. *Communications of the ACM*, 11(3):149, March 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Howlett:1968:LEN**

- [How68b] J. Howlett. Letter to the Editor: No trouble with Atlas I page-turning. *Communications of the ACM*, 11(3):149, March 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Howell:1969:AFa**

- [How69] John R. Howell. Algorithm 359: Factorial analysis of variance [G1]. *Communications of the ACM*, 12



(11):631–632, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hill:1966:ACI**

- [HP66] I. D. Hill and M. C. Pike. Algorithm 289: Confidence interval for a ratio [G1]. *Communications of the ACM*, 9(7):514, 518, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hill:1967:ACS**

- [HP67] I. D. Hill and M. C. Pike. Algorithm 299: Chi-squared integral. *Communications of the ACM*, 10(4):243–244, April 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [HP85, eL76].

**Hall:1968:GPT**

- [HP68a] C. A. Hall and T. A. Porsching. Generation of positive test matrices with known positive spectra. *Communications of the ACM*, 11(8):559–560, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hall:1968:PLG**

- [HP68b] C. A. Hall and T. A. Porsching. Programming languages: Generation of positive test matrices with known positive spectra. *Communications of the ACM*, 11(8):559–560, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hill:1985:RCS**

- [HP85] I. D. Hill and M. C. Pike. Remark on “Algorithm 299: Chi-Squared

Integral”. *ACM Transactions on Mathematical Software*, 11(2):185, June 1985. CODEN ACMSCU. ISSN 0098-3500. See [HP67, eL76].

**Hedger:1966:TOP**

- [HPSB66] R. Hedger, A. G. Pontius, J. M. Seehof, and G. Benson. A terminal operated production program (TOPP) system. *Communications of the ACM*, 9(7):478, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hasselblad:1964:CAE**

- [HR64] Vic Hasselblad and Jeff Rulifson. Certification of Algorithm 224: Evaluation of determinant. *Communications of the ACM*, 7(12):702, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hall:1969:CAC**

- [HR69] Gillian Hall and Valeria A. Ray. Certification of Algorithm 255 [C6]: Computation of Fourier coefficients. *Communications of the ACM*, 12(11):636, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hull:1966:TPM**

- [HS66] T. E. Hull and J. R. Swenson. Tests of probabilistic models for propagation of roundoff errors. *Communications of the ACM*, 9(2):108–113, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Harrison:1967:STS**

- [HS67] M. C. Harrison and J. T. Schwartz. SHARER, a time sharing system for the CDC 6600. *Communications of the ACM*, 10(10):659–665, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Har68b].

**Howard:1968:ADE**

- [HT68] James C. Howard and Howard Tashjian. An algorithm for deriving the equations of mathematical physics by symbolic manipulation. *Communications of the ACM*, 11(12):814–818, 826, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hubbard:1963:SCS**

- [Hub63] George U. Hubbard. Some characteristics of sorting in computing systems using random-access storage devices. *Communications of the ACM*, 6(5):248–255, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huber:1966:LEA**

- [Hub66] Hartmut G. M. Huber. Letter to the Editor: Algorithm and formula. *Communications of the ACM*, 9(9):653–654, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [WF66].

**Hunter:1968:AHA**

- [Hun68] D. B. Hunter. Algorithm 320: Harmonic analysis for symmetrically

distributed data [C6]. *Communications of the ACM*, 11(2):114–115, February 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1960:PAa**

- [Hus60a] Harry D. Huskey. From the President of ACM. *Communications of the ACM*, 3(11):595, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1960:PAb**

- [Hus60b] Harry D. Huskey. From the President of ACM. *Communications of the ACM*, 3(12):631, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1960:LPA**

- [Hus60c] Harry D. Huskey. Letter from the President of ACM. *Communications of the ACM*, 3(9):481, September 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1960:LER**

- [Hus60d] Harry D. Huskey. Letters to the Editor: Response to J. D. Madden. *Communications of the ACM*, 3(4):A12, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1961:PAa**

- [Hus61a] Harry D. Huskey. From the President of ACM. *Communications of the ACM*, 4(1):1, January 1961. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Huskey:1961:PAb**

- [Hus61b] Harry D. Huskey. From the President of ACM. *Communications of the ACM*, 4(3):136, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1961:PAc**

- [Hus61c] Harry D. Huskey. From the President of ACM. *Communications of the ACM*, 4(4):165, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1961:PAD**

- [Hus61d] Harry D. Huskey. From the President of ACM. *Communications of the ACM*, 4(5):205, May 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1961:LP**

- [Hus61e] Harry D. Huskey. Letter from the President. *Communications of the ACM*, 4(10):415, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1961:LPAa**

- [Hus61f] Harry D. Huskey. Letter from the President of ACM. *Communications of the ACM*, 4(2):89, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1961:LPAb**

- [Hus61g] Harry D. Huskey. Letter from the President of ACM. *Communications of the ACM*, 4(6):254, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1961:LPAc**

- [Hus61h] Harry D. Huskey. Letter from the President of ACM. *Communications of the ACM*, 4(11):476, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1961:LPAd**

- [Hus61i] Harry D. Huskey. Letter from the President of ACM. *Communications of the ACM*, 4(12):530, December 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1961:LPAe**

- [Hus61j] Harry D. Huskey. Letters from the President of ACM. *Communications of the ACM*, 4(9):368, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1962:LP**

- [Hus62a] Harry D. Huskey. Letter from the President. *Communications of the ACM*, 5(2):79, February 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1962:LPAa**

- [Hus62b] Harry D. Huskey. Letter from the President of ACM. *Communica-*



tions of the ACM, 5(1):1, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1962:LPAb**

- [Hus62c] Harry D. Huskey. Letter from the President of ACM. *Communications of the ACM*, 5(3):131, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1962:LPAc**

- [Hus62d] Harry D. Huskey. Letter from the President of ACM. *Communications of the ACM*, 5(4):186, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1962:LRP**

- [Hus62e] Harry D. Huskey. Letter from the retiring President of ACM. *Communications of the ACM*, 5(6):297, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1962:LPAd**

- [Hus62f] Harry D. Huskey. Letters from the President of ACM. *Communications of the ACM*, 5(5):235, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1964:JRJ**

- [Hus64] H. D. Huskey. Journal readership and journal purpose. *Communications of the ACM*, 7(11):646, November 1964. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hutchinson:1961:OTW**

- [Hut61] G. K. Hutchinson. Optimum tape-writing procedures. *Communications of the ACM*, 4(9):399–401, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hutchinson:1963:PAF**

- [Hut63] George Hutchinson. Partitioning algorithms for finite sets. *Communications of the ACM*, 6(10):613–614, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hutchinson:1965:LEF**

- [Hut65a] David Hutchinson. Letter to the Editor: a final word on reducing truncation errors. *Communications of the ACM*, 8(5):262, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hutchinson:1965:CCS**

- [Hut65b] George K. Hutchinson. A computer center simulation project. *Communications of the ACM*, 8(9):559–568, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hutchinson:1966:NUP**

- [Hut66] David W. Hutchinson. A new uniform pseudorandom number generator. *Communications of the ACM*, 9(6):432–433, June 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Hutton:1968:IRP**

- [Hut68] Fred C. Hutton. Information retrieval: PEEKABIT, computer offspring of punched card PEEKABOO, for natural language searching. *Communications of the ACM*, 11(9):595–598, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1961:BCA**

- [HW61a] H. D. Huskey and W. H. Wattenburg. A basic compiler for arithmetic expressions. *Communications of the ACM*, 4(1):3–9, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Huskey:1961:CTB**

- [HW61b] H. D. Huskey and W. H. Wattenburg. Compiling techniques for Boolean expressions and conditional statements in ALGOL 60. *Communications of the ACM*, 4(1):70–75, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Henrici:1965:FZP**

- [HW65] P. Henrici and Bruce O. Watkins. Finding zeros of a polynomial by the Q-D algorithm. *Communications of the ACM*, 8(9):570–574, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See letters [Tho66, Hen66b].

**Hext:1969:AGS**

- [HW69] J. B. Hext and J. W. Winings. An automatic grading scheme for sim-

ple programming exercises. *Communications of the ACM*, 12(5):272–275, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Hyman:1966:CPC**

- [Hym66] Harris Hyman. Comments on a problem in concurrent programming control. *Communications of the ACM*, 9(1):45, January 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ibbetson:1963:AG**

- [Ibb63a] D. Ibbetson. Algorithm 209: Gauss. *Communications of the ACM*, 6(10):616, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ibbetson:1963:RAE**

- [Ibb63b] D. Ibbetson. Remark on Algorithm 123: ERF. *Communications of the ACM*, 6(10):618, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Irons:1961:CIR**

- [IF61] E. T. Irons and W. Feurzeig. Comments on the implementation of recursive procedures and blocks in ALGOL 60. *Communications of the ACM*, 4(1):65–69, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Ikebe:1965:NTP**

- [Ike65] Yasuhiko Ikebe. Note on triple-precision floating-point arithmetic with 132-bit numbers. *Communications of the ACM*, 8(3):175–177, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Extends [GR64] from double to triple precision.

**Ilroy:1963:VMF**

- [Ilr63] M. D. Mc Ilroy. A variant method of file searching. *Communications of the ACM*, 6(3):101, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ingerman:1960:NCI**

- [Ing60] Peter Z. Ingerman. A note on the calculation of interest. *Communications of the ACM*, 3(10):542–543, October 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ingerman:1961:DD**

- [Ing61a] P. Z. Ingerman. Dynamic declarations. *Communications of the ACM*, 4(1):59–60, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ingerman:1961:AI**

- [Ing61b] Peter Z. Ingerman. Algorithm 45: INTEREST. *Communications of the ACM*, 4(4):178, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ingerman:1961:TWC**

- [Ing61c] Peter Z. Ingerman. Thunks: A way of compiling procedure statements with some comments on procedure declarations. *Communications of the ACM*, 4(1):55–58, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ingerman:1962:AMI**

- [Ing62a] P. Z. Ingerman. Algorithm 140: Matrix inversion. *Communications of the ACM*, 5(11):556, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ingerman:1962:APM**

- [Ing62b] P. Z. Ingerman. Algorithm 141: Path matrix. *Communications of the ACM*, 5(11):556, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ingerman:1962:GLT**

- [Ing62c] Peter Zilahy Ingerman. General language translation schemata. *Communications of the ACM*, 5(6):356, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ingerman:1967:PBF**

- [Ing67] Peter Zilahy Ingerman. “Pānini–Backus Form” suggested. *Communications of the ACM*, 10(3):137, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Irons:1961:SDC**

- [Iro61] Edgar T. Irons. A syntax directed compiler for ALGOL 60. *Communications of the ACM*, 4(1):51–55, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Irons:1963:ECP**

- [Iro63] E. T. Irons. An error-correcting parse algorithm. *Communications of the ACM*, 6(11):669–673, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Irons:1964:SCF**

- [Iro64] E. T. Irons. “structural connections” in formal languages. *Communications of the ACM*, 7(2):67–72, February 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Irons:1965:RTM**

- [Iro65] E. T. Irons. A rapid turnaround multi-programming system. *Communications of the ACM*, 8(3):152–157, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Irwin:1967:IPS**

- [Irw67] Larry Irwin. Implementing phrase-structure productions in PL/I. *Communications of the ACM*, 10(7):424, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Isaacs:1966:NSM**

- [IS66] C. D. Isaacs and J. E. Stengle. A new solution method for the determinantal equation of a matrix polynomial. *Communications of the ACM*, 9(7):475, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Isoda:1963:CAC**

- [Iso63] Kazuo Isoda. Certification of Algorithm 74: Curve fitting with constraints. *Communications of the ACM*, 6(6):316, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ito:1976:RIT**

- [Ito76] M. R. Ito. Remark on “Algorithm 284: Interchange of Two Blocks of Data [K2]”. *ACM Transactions on Mathematical Software*, 2(4):392–393, December 1976. CODEN ACMSCU. ISSN 0098-3500. See [FS66].

**Iverson:1964:FPL**

- [Ive64a] Kenneth E. Iverson. Formalism in programming languages. *Communications of the ACM*, 7(2):80–88, February 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Iverson:1964:MSS**

- [Ive64b] Kenneth E. Iverson. A method of syntax specification. *Communications of the ACM*, 7(10):588–589, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Iverson:1965:LER**

- [Ive65] Kenneth E. Iverson. Letter to the Editor: Remarks on syntax and generalization of ALGOL 60. *Communications of the ACM*, 8(9):542, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Letter to the editor.

**Juelich:1964:RPT**

- [JA64] O. C. Juelich and James A. Ayers. On the recursive programming techniques. *Communications of the ACM*, 7(5):314, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Jacobs:1964:PPC**

- [Jac64] Morton C. Jacobs. Patent protection of computer programs. *Communications of the ACM*, 7(10):583–584, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Jamerson:1964:H**

- [Jam64] Katherine Jamerson. Hurrah! *Communications of the ACM*, 7(4):203, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Jansen:1977:RLF**

- [Jan77] J. K. M. Jansen. Remark on “Algorithm 259: Legendre Functions for Arguments Larger than One”. *ACM Transactions on Mathematical Software*, 3(2):204–250, June 1977. CODEN ACMSCU. ISSN 0098-3500. See [Gau65a].

**Jordan:1966:SFP**

- [JCK66] Dale E. Jordan, Lewis C. Clapp, and Richard Y. Kain. Symbolic factoring of polynomials in several variables. *Communications of the ACM*, 9(8):638–643, August 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Jamerson:1969:LER**

- [JE69] Katherine M. Jamerson and T. M. R. Ellis. Letter to the Editor: restore professional atmosphere at ACM meetings. *Communications of the ACM*, 12(6):304, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Jefferson:1961:AIE**

- [Jef61] David K. Jefferson. Algorithm 73: Incomplete elliptic integrals. *Communications of the ACM*, 4(12):543, December 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Jefferson:1962:RAI**

- [Jef62] David K. Jefferson. Remark on Algorithm 73: Incomplete elliptic integrals. *Communications of the ACM*, 5(10):514, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Jensen:1961:SAS**

- [JMN61] J. Jensen, P. Mondrup, and P. Naur. A storage allocation scheme for ALGOL 60. *Communications of the ACM*, 4(10):441–445,



October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Jodeit:1962:AMA**

- [Jod62] Jane G. Jodeit. On addressing multidimensional arrays. *Communications of the ACM*, 5(9):468, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Jodeit:1968:SOP**

- [Jod68] Jane G. Jodeit. Storage organization in programming systems. *Communications of the ACM*, 11(11):741–746, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Johnson:1961:ICM**

- [Joh61] L. R. Johnson. An indirect chaining method for addressing on secondary keys. *Communications of the ACM*, 4(5):218–222, May 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Johnston:1965:CUC**

- [Joh65] John B. Johnston. A class of unambiguous computer languages. *Communications of the ACM*, 8(3):147–149, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Jones:1962:NST**

- [Jon62] T. G. Jones. A note on sampling a tape-file. *Communications of the ACM*, 5(6):343, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Johnson:1968:AGE**

- [JPAR68] Walter L. Johnson, James H. Porter, Stephanie I. Ackley, and Douglas T. Ross. Automatic generation of efficient lexical processors using finite state techniques. *Communications of the ACM*, 11(12):805–813, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Johnson:1962:RAG**

- [JS62a] Margaret L. Johnson and Ward Sangren. Remark on Algorithm 34: Gamma function. *Communications of the ACM*, 5(7):391, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Johnson:1962:ACN**

- [JS62b] Margaret L. Johnson and Ward Sangren. Algorithm 106: Complex number to a real power. *Communications of the ACM*, 5(7):388, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [Erw62].

**Johnson:1962:RAL**

- [JS62c] Margaret L. Johnson and Ward Sangren. Remark on Algorithm 48: Logarithm of a complex number. *Communications of the ACM*, 5(7):391, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Juelich:1963:FRS**

- [Jue63a] O. C. Juelich. Further remarks on sampling a tape file—III. *Communications of the ACM*, 6(7):384,



July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Juelich:1963:RAS**

- [Jue63b] O. C. Juelich. Remark on Algorithm 175: Shuttle Sort. *Communications of the ACM*, 6(12):739–739, 745, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Juelich:1964:RAS**

- [Jue64] Otto C. Juelich. Remark on Algorithm 175: Shuttle sort. *Communications of the ACM*, 7(5):296, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Juncosa:1961:LEC**

- [Jun61] M. L. Juncosa. Letter to the Editor: concerning Ferguson's paper on Fibonacci searching. *Communications of the ACM*, 4(6):252, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Juncosa:1964:WAP**

- [Jun64] M. L. Juncosa. Whither the ACM publications? *Communications of the ACM*, 7(11):645, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ku:1969:CPR**

- [KA69] S. Y. Ku and R. J. Adler. Computing polynomial resultants: Bézout's determinant vs Collins' reduced P.R.S. algorithm. *Communications of the ACM*, 12(1):23–30, January

1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kahn:1962:TSL**

- [Kah62] A. B. Kahn. Topological sorting of large networks. *Communications of the ACM*, 5(11):558–562, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kahn:1963:SSP**

- [Kah63] Arthur B. Kahn. Skeletal structure of PERT and CPA computer programs. *Communications of the ACM*, 6(8):473–479, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kahan:1965:PFR**

- [Kah65] W. Kahan. Pracniques: Further remarks on reducing truncation errors. *Communications of the ACM*, 8(1):40, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kaiser:1962:MEA**

- [Kai62] C. J. Kaiser. A method for eliminating ambiguity due to signal coincidence in digital design. *Communications of the ACM*, 5(4):211–220, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kain:1967:ARF**

- [Kai67] R. Y. Kain. Aesop and the referee: a fable. *Communications of the ACM*, 10(3):138, March 1967. CO-



DEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kain:1969:PLB**

- [Kai69] R. Y. Kain. Programming languages: Block structures, indirect addressing, and garbage collection. *Communications of the ACM*, 12(7):395–398, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kanner:1960:NUA**

- [Kan60] Herbert Kanner. A note on the use of the abacus in number conversion. *Communications of the ACM*, 3(3):167, March 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kanner:1964:ALS**

- [Kan64] Herbert Kanner. An automatic loader for subroutine nests. *Communications of the ACM*, 7(7):416–417, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Karst:1961:ATN**

- [Kar61] E. Karst. On approximating transcendental numbers by continued fractions. *Communications of the ACM*, 4(4):171, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Karst:1962:MAS**

- [Kar62] Edgar Karst. More about the Siemens 2002. *Communications of the ACM*, 5(1):6, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Karfhage:1964:LCS**

- [Kar64] Robert R. Karfhage. Logic for the computer sciences. *Communications of the ACM*, 7(4):216–218, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Karim:1966:SFO**

- [Kar66] Abbas I. Abdel Karim. The stability of the fourth order Runge–Kutta method for the solution of systems of differential equations. *Communications of the ACM*, 9(2):113–116, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kassler:1962:DMS**

- [Kas62] Michael Kassler. Decision of a musical system. *Communications of the ACM*, 5(4):223, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kase:1963:ATO**

- [Kas63] Robert H. Kase. Algorithm 219: Topological ordering for PERT networks. *Communications of the ACM*, 6(12):738–739, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Ten77].

**Katz:1960:CRU**

- [Kat60] Donald L. Katz. Conference report on the use of computers in engineering classroom instruction. *Communications of the ACM*, 3(10):522–527, October 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Katz:1963:OBT**

- [Kat63a] Jesse H. Katz. Optimizing bit-time computer simulation. *Communications of the ACM*, 6(11):679–685, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Katz:1963:STN**

- [Kat63b] Jesse H. Katz. Simulation of a traffic network. *Communications of the ACM*, 6(8):480–486, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kates:1964:CPD**

- [Kat64] Joseph P. Kates. Computer patent disclosures. *Communications of the ACM*, 7(10):578–579, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Katz:1967:EMS**

- [Kat67] Jesse H. Katz. An experimental model of System/360. *Communications of the ACM*, 10(11):694–702, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Katz:1969:SOA**

- [Kat69] Jesse H. Katz. Simulation of outpatient appointment systems. *Communications of the ACM*, 12(4):215–222, April 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kaupe:1962:ATa**

- [Kau62a] Arthur F. Kaupe, Jr. Algorithm 143: Treesort 1. *Communications of the ACM*, 5(12):604, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kaupe:1962:ATb**

- [Kau62b] Arthur F. Kaupe, Jr. Algorithm 144: Treesort 2. *Communications of the ACM*, 5(12):604, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kaupe:1963:ADS**

- [Kau63a] Arthur F. Kaupe, Jr. Algorithm 178: Direct search. *Communications of the ACM*, 6(6):313–314, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kaupe:1963:NDE**

- [Kau63b] Arthur F. Kaupe, Jr. A note on the dangling else ALGOL 60. *Communications of the ACM*, 6(8):460, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kaupe:1964:OST**

- [Kau64] Arthur F. Kaupe, Jr. On optimal search techniques. *Communications of the ACM*, 7(1):38, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Kaufman:1966:ITI**

- [Kau66] Samuel Kaufman. The IBM technical information retrieval center (ITIRC) system techniques. *Communications of the ACM*, 9(7):483, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Knuth:1964:PIO**

- [KBH<sup>+</sup>64] D. E. Knuth, L. L. Bumgarner, D. E. Hamilton, P. Z. Ingerman, M. P. Lietzke, J. N. Merner, and D. T. Ross. A proposal for input-output conventions in ALGOL 60. *Communications of the ACM*, 7(5):273–283, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Russian translation by M. I. Ageev in *Sovremennoe Programmirovaniye* **1** (Moscow: Soviet Radio, 1966), 73–107.

**Krolak:1963:EFS**

- [KC63] P. Krolak and L. Cooper. An extension of Fibonacci search to several variables. *Communications of the ACM*, 6(10):639–641, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kolm:1971:MAL**

- [KD71] Å. Kolm and T. Dahlstrand. Remark on “Algorithm 333: Minit Algorithm For Linear Programming ([H])”. *Communications of the ACM*, 14(1):50, 1971. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [SS68].

**Keenan:1964:CE**

- [Kee64] Thomas A. Keenan. Computers and education. *Communications of the ACM*, 7(4):205–209, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kelley:1961:TSA**

- [Kel61] J. E. Kelley, Jr. Techniques for storage allocation algorithms. *Communications of the ACM*, 4(10):449–454, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kellington:1962:DS**

- [Kel62] M. R. Kellington. Digitaria sanguinalis. *Communications of the ACM*, 5(6):364, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kelley:1964:RPC**

- [Kel64] Thomas B. Kelley. Rounding problems in commercial data processing. *Communications of the ACM*, 7(11):654–656, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kent:1960:PSP**

- [Ken60a] Eric R. Kent. A proposal for a set of publication standards for use by the ACM. *Communications of the ACM*, 3(2):70–71, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Kenyon:1960:ABC**

- [Ken60b] Richard R. Kenyon. Algorithm 19: Binomial coefficients. *Communications of the ACM*, 3(10):540, October 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kent:1961:MMD**

- [Ken61] Allen Kent. Mathematical model for a documentation system. *Communications of the ACM*, 4(2):114, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kent:1965:FAC**

- [Ken65] William Kent. A Fortran  $n$ -ary counter. *Communications of the ACM*, 8(6):378, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kennedy:1969:OCI**

- [Ken69] Michael Kennedy. On obtaining correct input: A new approach. *Communications of the ACM*, 12(7):409–411, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kerner:1966:ASD**

- [Ker66] Immo O. Kerner. Algorithm 283: Simultaneous displacement of polynomial roots if real and simple. *Communications of the ACM*, 9(4):273, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kesner:1962:FPA**

- [Kes62] O. Kesner. Floating-point arithmetic in COBOL. *Communications of the ACM*, 5(5):269–271, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Keyes:1963:MPB**

- [Key63] David F. Keyes. Multiple-precision binary-to-decimal integer conversion using only addition and subtraction. *Communications of the ACM*, 6(8):439, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kahan:1963:ACC**

- [KF63a] W. Kahan and I. Farkas. Algorithm 167: Calculation of confluent divided differences. *Communications of the ACM*, 6(4):164–165, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kahan:1963:ANIb**

- [KF63b] W. Kahan and I. Farkas. Algorithm 168: Newton interpolation with backward divided differences. *Communications of the ACM*, 6(4):165, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kahan:1963:ANIa**

- [KF63c] W. Kahan and I. Farkas. Algorithm 169: Newton interpolation with forward divided differences. *Communications of the ACM*, 6(4):165, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Krall:1967:AGR**

- [KF67] Allan M. Krall and Robert Fornaro. An algorithm for generating root locus diagrams. *Communications of the ACM*, 10(3):186–188, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Knuth:1962:BL**

- [KG62] Donald E. Knuth and Saul Gorn. Letters to the Editor: Backus' language. *Communications of the ACM*, 5(4):185, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Gor61b].

**Knuth:1963:LET**

- [KG63] Donald E. Knuth and Martin A. Goetz. Letter to the Editor: Three letters on merging. *Communications of the ACM*, 6(10):585–587, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kehl:1961:IRL**

- [KHBM61] William B. Kehl, John F. Harty, Charles R. T. Bacon, and David S. Mitchell. An information retrieval language for legal studies. *Communications of the ACM*, 4(9):380–389, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**King:1965:DVF**

- [Kin65a] Donald R. King. Dynamic variable formatting. *Communications of the ACM*, 8(5):326, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**King:1965:LED**

- [Kin65b] R. King. Letter to the Editor: On the double-precision square root routine. *Communications of the ACM*, 8(4):202, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**King:1966:CDT**

- [Kin66] P. J. H. King. Conversion of decision tables to computer programs by rule mask techniques. *Communications of the ACM*, 9(11):796–801, November 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**King:1968:ALE**

- [Kin68] P. J. H. King. Ambiguity in limited entry decision tables. *Communications of the ACM*, 11(10):680–684, October 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kirk:1965:UDT**

- [Kir65] H. W. Kirk. Use of decision tables in computer programming. *Communications of the ACM*, 8(1):41–43, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kiviat:1962:AAI**

- [Kiv62a] Philip J. Kiviat. Algorithm 100: Add item to chain-linked list. *Communications of the ACM*, 5(6):346, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Kiviat:1962:ARI**

- [Kiv62b] Philip J. Kiviat. Algorithm 101: Remove item from chain-linked list. *Communications of the ACM*, 5(6):346, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Klemes:1974:RAR**

- [KK74] Jiri Klemes and Jaroslav Klemsa. Remark on “Algorithm 450: Rosenbrock function minimization”. *Communications of the ACM*, 17(10):590–591, October 1974. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [MM73, Bul74].

**Kanner:1965:SYA**

- [KKR65] H. Kanner, P. Kosinski, and C. L. Robinson. The structure of yet another ALGOL compiler. *Communications of the ACM*, 8(7):427–438, July 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kahan:1964:FPM**

- [KL64] W. Kahan and J. J. Leppik. A FORTRAN post-mortem procedure. *Communications of the ACM*, 7(1):15, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kleinecke:1964:RHS**

- [Kle64] David Kleinecke. In response to “How should ACM publish computer research”. *Communications of the ACM*, 7(11):682, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Klerer:1966:BNP**

- [Kle66] Melvin Klerer. Basic problems in nonnumerical mathematics not yet well understood, SICSAM symposium reveals. *Communications of the ACM*, 9(5):393, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Klein:1967:SPN**

- [Kle67] Mark M. Klein. Scheduling project networks. *Communications of the ACM*, 10(4):225–231, April 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kliphardt:1963:DAD**

- [Kli63] Raymond A. Kliphardt. DESCRIPTRAN—automated descriptive geometry. *Communications of the ACM*, 6(6):336–339, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Klimpel:1969:AMS**

- [Kli69] R. R. Klimpel. Algorithm 348: Matrix scaling by integer programming [F1]. *Communications of the ACM*, 12(4):212–213, April 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Klopfenstein:1965:ADE**

- [Klo65] R. W. Klopfenstein. Applications of differential equations in general problem solving. *Communications of the ACM*, 8(9):575–578, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



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|---|---|
| <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Knuth:1961:AC</b></div> <p>[KM61] Donald E. Knuth and Jack N. Merner. ALGOL 60 confidential. <i>Communications of the ACM</i>, 4(6):268–272, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Nau63c].</p>  | <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Knowlton:1965:FSA</b></div> <p>[Kno65] Kenneth C. Knowlton. A fast storage allocator. <i>Communications of the ACM</i>, 8(10):623–625, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).</p>   |
| <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Klerer:1964:EUO</b></div> <p>[KM64] Melvin Klerer and Jack May. An experiment in a user-oriented computer system. <i>Communications of the ACM</i>, 7(5):290–294, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).</p>  | <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Knowlton:1966:PDL</b></div> <p>[Kno66] Kenneth C. Knowlton. A programmer's description of L6. <i>Communications of the ACM</i>, 9(8):616–625, August 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).</p>   |
| <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Klerer:1967:AD</b></div> <p>[KM67] Melvin Klerer and Jack May. Automatic dimensioning. <i>Communications of the ACM</i>, 10(3):165–166, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).</p>  | <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Knop:1969:RAG</b></div> <p>[Kno69] R. Knop. Remark on Algorithm 334 [G5]: Normal random deviates. <i>Communications of the ACM</i>, 12(5):281, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).</p>   |
| <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Krishnamurthy:1967:NRD</b></div> <p>[KN67] E. V. Krishnamurthy and Salil K. Nandi. On the normalization requirement of divisor in divide-and-correct methods. <i>Communications of the ACM</i>, 10(12):809–813, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).</p> | <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Knuth:1960:INS</b></div> <p>[Knu60] Donald E. Knuth. An imaginary number system. <i>Communications of the ACM</i>, 3(4):245–247, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Errata, <i>Communications of the ACM</i> 4 (August 1961), 355 [Knu61]. See [Nad61] for extension to division and square root.</p> |
| <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Knapp:1961:CAI</b></div> <p>[Kna61] Anthony W. Knapp. Certification of Algorithm 42: INVERT. <i>Communications of the ACM</i>, 4(11):498, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).</p>   | <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Knuth:1961:EIN</b></div> <p>[Knu61] Donald E. Knuth. Errata: “An imaginary number system”. <i>Communications of the ACM</i>, 4(8):355, August 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Knu60].</p>   |



**Knuth:1962:CE**

- [Knu62a] Donald E. Knuth. The calculation of Easter. . . . *Communications of the ACM*, 5(4):209–210, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See certification [Wil62].

**Knuth:1962:EPC**

- [Knu62b] Donald E. Knuth. Evaluation of polynomials by computer. *Communications of the ACM*, 5(12):595–599, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See letter [Knu63c].

**Knuth:1963:CDF**

- [Knu63a] Donald E. Knuth. Computer-drawn flowcharts. *Communications of the ACM*, 6(9):555–563, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Knuth:1963:LSM**

- [Knu63b] Donald E. Knuth. Length of strings for a merge sort. *Communications of the ACM*, 6(11):685–688, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Knuth:1963:LEE**

- [Knu63c] Donald E. Knuth. Letter to the Editor: Evaluation of polynomials by computer. *Communications of the ACM*, 6(2):51, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Knu62b].

**Knuth:1964:LEB**

- [Knu64] Donald E. Knuth. Letter to the editor: Backus Normal Form vs. Backus Naur Form. *Communications of the ACM*, 7(12):735–736, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Knuth:1966:EAC**

- [Knu66a] Donald E. Knuth. Errata: “Additional comments on a problem in concurrent programming control”. *Communications of the ACM*, 9(12):878, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Knu66b].

**Knuth:1966:LEAa**

- [Knu66b] Donald E. Knuth. Letter to the Editor: Additional comments on a problem in concurrent programming control. *Communications of the ACM*, 9(5):321–322, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Dij65]. See errata [Knu66a]. Reprinted in *Comm. ACM* **26** (January 1983), 22.

**Knuth:1966:LEAb**

- [Knu66c] Donald E. Knuth. Letter to the Editor: Algorithm and program; information and data. *Communications of the ACM*, 9(9):654, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Knuth:1967:RTS**

- [Knu67] Donald E. Knuth. The remaining trouble spots in ALGOL 60. *Com-*



*munications of the ACM*, 10(10): 611–618, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remarks [Woo69]. Reprinted in E. Horowitz, *Programming Languages: A Grand Tour* (Computer Science Press, 1982), 61–68.

**Knuth:1973:ACP**

- [Knu73] D. E. Knuth. *The Art of Computer Programming, Sorting and Searching*, volume 3. Addison-Wesley, Reading, MA, USA, 1973. ISBN 0-201-03803-X. xi + 723 pp. LCCN QA76.5 .K74.

**Knuth:1974:SPG**

- [Knu74] Donald E. Knuth. Structured programming with **go to** statements. *Computing Surveys*, 6(4): 261–301, December 1974. CODEN CMSVAN. ISSN 0360-0300 (print), 1557-7341 (electronic). Reprinted with revisions in *Current Trends in Programming Methodology*, Raymond T. Yeh, ed., 1 (Englewood Cliffs, NJ: Prentice-Hall, 1977), 140–194; *Classics in Software Engineering*, Edward Nash Yourdon, ed. (New York: Yourdon Press, 1979), 259–321. Reprinted with “final” revisions in [Knu92, pp. 17–89]. This paper is a response to [Dij68a].

**Knuth:1992:LP**

- [Knu92] Donald E. Knuth. *Literate Programming*. CSLI Lecture Notes Number 27. Stanford University Center for the Study of Language and Information, Stanford, CA, USA, 1992. ISBN 0-937073-80-6 (paperback), 0-937073-81-4 (hard-

cover). xvi + 368 pp. LCCN QA76.6 .K644 1992. US\$24.95 (paperback), US\$59.95 (hardcover). Distributed by the University of Chicago Press.

**Kuno:1968:CLP**

- [KO68] Susumu Kuno and Anthony G. Oettinger. Computational linguistics in a Ph.D. computer science program. *Communications of the ACM*, 11(12):831–836, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kochen:1961:ECP**

- [Koc61] M. Kochen. An experimental computer program for hypothesis selection. *Communications of the ACM*, 4(7):323, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kohfeld:1967:CAN**

- [Koh67] John J. Kohfeld. Certification of Algorithm 30: Numerical solution of the polynomial equation. *Communications of the ACM*, 10(5):293, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Koller:1961:LEC**

- [Kol61] Herbert R. Koller. Letter to the Editor: computers becoming class conscious? *Communications of the ACM*, 4(9):367, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Kolbig:1968:ADS**

- [Köl68a] K. S. Kölbig. Algorithm 327: Dilogarithm [S22]. *Communications of the ACM*, 11(4):270–271, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kolbig:1968:RAM**

- [Köl68b] K. S. Kölbig. Remarks on Algorithm 32 [D1]: MULTINT and Certification of Algorithm 32. *Communications of the ACM*, 11(12):826, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kolbig:1969:CASa**

- [Köl69a] K. S. Kölbig. Certification of Algorithm 292 [S22]: Regular Coulomb wave functions and of remark on Algorithm 292 [S22]: Regular Coulomb wave functions. *Communications of the ACM*, 12(5):278–279, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kolbig:1969:CASb**

- [Köl69b] K. S. Kölbig. Certification of Algorithm 300 [S22]: Coulomb wave functions. *Communications of the ACM*, 12(5):279–280, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kolbig:1969:RAS**

- [Köl69c] K. S. Kölbig. Remark on Algorithm 300 [S22]: Coulomb wave functions. *Communications of the ACM*, 12(12):692, December 1969. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kolbig:1972:CAC**

- [Köl72] K. S. Kölbig. Certification of “Algorithm 363: Complex error function”. *Communications of the ACM*, 15(6):465–466, June 1972. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Gau69a].

**Konda:1963:AA**

- [Kon63a] Misako Konda. Algorithm 206: ARCCOSSIN. *Communications of the ACM*, 6(9):519, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Bow65b].

**Konda:1963:LEC**

- [Kon63b] Misako Konda. Letter to the Editor: correction to FUSBUDET. *Communications of the ACM*, 6(10):587, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kondo:1963:CAN**

- [Kon63c] Joanne Kondo. Certification of Algorithm 105: Newton Maehly. *Communications of the ACM*, 6(7):389, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Koppelaar:1974:CRA**

- [Kop74] Henk Koppelaar. Certification and remark on “Algorithm 191: Hypergeometric”. *Communications of the ACM*, 17(10):589–590, October 1974. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic). See [Rel63b].

**Korfhage:1965:DNI**

- [Kor65] Robert R. Korfhage. Deeply nested iterations. *Communications of the ACM*, 8(6):377–378, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Korfhage:1968:NRE**

- [Kor68] Robert R. Korfhage. A note on a relevance estimate and its improvement. *Communications of the ACM*, 11(11):756, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Korenjak:1969:PMC**

- [Kor69] A. J. Korenjak. A practical method for constructing LR (k) processors. *Communications of the ACM*, 12(11):613–623, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Krasun:1965:RRQ**

- [KP65] A. M. Krasun and W. Prager. Remark on Romberg quadrature. *Communications of the ACM*, 8(4):236–237, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**King:1969:LEN**

- [KP69] Richard F. King and David L. Phillips. The logarithmic error and Newton's method for the square root. *Communications of the ACM*, 12(2):87–88, February 1969. CO-

DEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kernighan:1999:REL**

- [KP99] Brian W. Kernighan and Rob Pike. Regular expressions: Languages, algorithms, software. *Dr. Dobbs's Journal of Software Tools*, 24(4):19–22, April 1999. CODEN DDJOEB. ISSN 1044-789X. URL [http://www.ddj.com/ftp/1999/1999\\_04/regexp.txt](http://www.ddj.com/ftp/1999/1999_04/regexp.txt); [http://www.ddj.com/ftp/1999/1999\\_04/regexp.zip](http://www.ddj.com/ftp/1999/1999_04/regexp.zip); <http://www.drdoobs.com/architecture-and-design/regular-expressions/184410904>; <http://www.drdoobs.com/architecture-and-design/regular-expressions/architecture-and-design/sourcecode/regular-expressions/30200909>; <http://www.drdoobs.com/architecture-and-design/regular-expressions/architecture-and-design/sourcecode/regular-expressions/30200910>. See also [Tho68, Cox07, Cox09, Cox10, Cox12].

**Kral:1968:OWE**

- [Krá68] Jaroslav Král. One way of estimating frequencies of jumps in a program. *Communications of the ACM*, 11(7):475–480, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Krishnamurthy:1965:DCM**

- [Kri65] E. V. Krishnamurthy. On a divide-and-correct method for variable precision division. *Communications of the ACM*, 8(3):179–181, March 1965. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Krischer:1968:LEC**

- [Kri68] Jeffrey P. Krischer. Letter to the Editor: On computer appreciation in the undergraduate curriculum. *Communications of the ACM*, 11(9):594, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kanner:1964:ESM**

- [KRK64] H. Kanner, C. Robinson, and P. Kosinski. Eliminate stack mechanisms in computer hardware? *Communications of the ACM*, 7(1):1, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kruskal:1969:EPR**

- [Kru69] J. B. Kruskal. Extremely portable random number generator. *Communications of the ACM*, 12(2):93–94, February 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kurki-Suonio:1966:TBR**

- [KS66] Reino Kurki-Suonio. On top-to-bottom recognition and left recursion. *Communications of the ACM*, 9(7):527–528, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kumpf:1960:LE**

- [KSB60] John E. Kumpf, C. M. Sidlo, and R. W. Bemer. Letters to the Editor. *Communications of the ACM*, 3(11):A10–A109, November 1960. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic).

**Kubik:1965:AHl**

- [Kub65] Robert N. Kubik. Algorithm 257: Havie integrator. *Communications of the ACM*, 8(6):381, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kubik:1966:ADE**

- [Kub66a] Robert N. Kubik. On applications of differential equations in general problem solving. *Communications of the ACM*, 9(2):123, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kuby:1966:EMS**

- [Kub66b] G. H. Kuby. Engineering, medical and scientific applications. *Communications of the ACM*, 9(7):478, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kuehn:1961:BPR**

- [Kue61] Heidi G. Kuehn. A 48-bit pseudo-random number generator. *Communications of the ACM*, 4(8):350–352, August 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kuhn:1966:RTE**

- [Kuh66] Frank T. Kuhn. A real-time error correcting data transmission system treated as a Markov process. *Communications of the ACM*, 9(7):482, July 1966. CODEN CACMA2.



ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kuiken:1968:DIP**

- [Kui68] H. K. Kuiken. Determination of the intersection points of two plane curves by means of differential equations. *Communications of the ACM*, 11(7):502–506, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kulsrud:1961:PTD**

- [Kul61] H. E. Kulsrud. A practical technique for the determination of the optimum relaxation factor of the successive over-relaxation method. *Communications of the ACM*, 4(4):184–187, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kulsrud:1968:PLG**

- [Kul68] H. E. Kulsrud. Programming languages: A general purpose graphic language. *Communications of the ACM*, 11(4):247–254, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kuncir:1962:ASR**

- [Kun62] Guy F. Kuncir. Algorithm 103: Simpson's rule integrator. *Communications of the ACM*, 5(6):347, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kuno:1965:PAP**

- [Kun65] Susumu Kuno. The predictive analyzer and a path elimina-

tion technique. *Communications of the ACM*, 8(7):453–462, July 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kuno:1966:APA**

- [Kun66] Susumu Kuno. The augmented predictive analyzer for context-free languages—its relative efficiency. *Communications of the ACM*, 9(11):810–823, November 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kurtzberg:1962:AC**

- [Kur62] Jerome Kurtzberg. Algorithm 94: Combination. *Communications of the ACM*, 5(6):344, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kurtz:1966:DA**

- [Kur66] Shulom Kurtz. In defense of ALGOL. *Communications of the ACM*, 9(3):135, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kutler:1960:COI**

- [Kut60] S. S. Kutler. Counting ones on the IBM 7090. *Communications of the ACM*, 3(8):474, August 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kruglyak:1962:ADEa**

- [KW62a] Yuri A. Kruglyak and Donald R. Whitman. Algorithm 108: Definite exponential integrals A. *Communications of the ACM*, 5(7):388, July 1962. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Kruglyak:1962:ADEb**

- [KW62b] Yuri A. Kruglyak and Donald R. Whitman. Algorithm 109: Definite exponential integrals B. *Communications of the ACM*, 5(7):388–389, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kruglyak:1962:AQM**

- [KW62c] Yuri A. Kruglyak and Donald R. Whitman. Algorithm 110: Quantum mechanical integrals of Slater-type orbitals. *Communications of the ACM*, 5(7):389–390, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kruglyak:1962:AMO**

- [KW62d] Yuri A. Kruglyak and Donald R. Whitman. Algorithm 111: Molecular-orbital calculation of molecular interactions. *Communications of the ACM*, 5(7):390–391, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kruglyak:1962:CADa**

- [KW62e] Yuri A. Kruglyak and Donald R. Whitman. Certification of Algorithm 108: Definite exponential integrals A. *Communications of the ACM*, 5(7):393, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kruglyak:1962:CADb**

- [KW62f] Yuri A. Kruglyak and Donald R. Whitman. Certification of Algorithm 109: Definite exponential integrals B. *Communications of the ACM*, 5(7):393, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Kruglyak:1962:CAQ**

- [KW62g] Yuri A. Kruglyak and Donald R. Whitman. Certification of Algorithm 110: Quantum mechanical integrals of Slater-type orbitals. *Communications of the ACM*, 5(7):393, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lahners:1965:ARA**

- [Lah65] Elaine L. Lahners. Automation of the radioisotope accountability system. *Communications of the ACM*, 8(2):107–110, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Laing:1961:AT**

- [Lai61a] Richard Laing. Automata theory. *Communications of the ACM*, 4(9):406, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Laing:1961:NNS**

- [Lai61b] Richard Laing. Nerve-net simulations. *Communications of the ACM*, 4(9):405, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Lake:1962:LEH**

- [Lak62] G. T. Lake. Letter to the editor: Hardware conversion of decimal and binary numbers. *Communications of the ACM*, 5(9):468–469, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lampson:1968:SPM**

- [Lam68] Butler W. Lampson. A scheduling philosophy for multiprocessor systems. *Communications of the ACM*, 11(5):347–360, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Landin:1965:CBAa**

- [Lan65a] P. J. Landin. A correspondence between ALGOL 60 and Church's lambda-notation: Part I. *Communications of the ACM*, 8(2):89–101, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Landin:1965:CBAb**

- [Lan65b] P. J. Landin. A correspondence between ALGOL 60 and Church's lambda-notation: Part II. *Communications of the ACM*, 8(3):158–165, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Langmaack:1965:AGH**

- [Lan65c] H. Langmaack. Algorithm 263: Gomory 1 [H]. *Communications of the ACM*, 8(10):601–602, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Landin:1966:NPL**

- [Lan66] Peter J. Landin. The next 700 programming languages. *Communications of the ACM*, 9(3):157–166, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Langdon:1967:AGP**

- [Lan67] G. G. Langdon, Jr. An algorithm for generating permutations. *Communications of the ACM*, 10(5):298–299, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Langdon:1968:LEG**

- [Lan68] Glen G. Langdon, Jr. Letter to the Editor: Generating permutations by nested cycling. *Communications of the ACM*, 11(6):392, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lanzano:1969:LSO**

- [Lan69] Bernadine C. Lanzano. Loader standardization for overlay programs. *Communications of the ACM*, 12(10):541–550, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lapidus:1963:CAD**

- [Lap63] Arnold Lapidus. Certification of Algorithm 159: Determinant. *Communications of the ACM*, 6(12):739, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Larsen:1962:MIP**

- [Lar62a] L. J. Larsen. A modified inversion procedure for product form of the inverse linear programming codes. *Communications of the ACM*, 5(7):382–383, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Larsen:1962:LEM**

- [Lar62b] Robert P. Larsen. Letters to the Editor: More on using an IF statement for bed comparison. *Communications of the ACM*, 5(10):497, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Larsen:1966:DFA**

- [Lar66a] Robert P. Larsen. Data filtering applied to information storage and retrieval applications. *Communications of the ACM*, 9(11):785–789, November 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Larssen:1966:CAC**

- [Lar66b] Gerhard Meidell Larssen. Certification of Algorithm 56: Complete elliptic integral of the second kind. *Communications of the ACM*, 9(1):12, January 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lasser:1961:TOL**

- [Las61] Daniel J. Lasser. Topological ordering of a list of randomly-numbered elements of a network. *Communications of the ACM*, 4(4):167–168, April 1961. CODEN CACMA2.

ISSN 0001-0782 (print), 1557-7317 (electronic).

**LaSor:1963:TMI**

- [LaS63] William S. LaSor. Test matrix for inversion. *Communications of the ACM*, 6(3):102, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lass:1965:PTC**

- [Las65] S. E. Lass. PERT time calculations without topological ordering. *Communications of the ACM*, 8(3):172–174, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lass:1969:APC**

- [Las69a] Stanley E. Lass. Automated printed circuit routing with a stepping aperture. *Communications of the ACM*, 12(5):262–265, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lasser:1969:PMC**

- [Las69b] Daniel J. Lasser. Productivity of multiprogrammed computers — progress in developing an analytic prediction method. *Communications of the ACM*, 12(12):678–684, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Laughlin:1963:RAR**

- [Lau63] Donald L. Laughlin. Remark on Algorithm 133: Random. *Communications of the ACM*, 6(3):105, March 1963. CODEN CACMA2.



ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lawrence:1963:CAE**

- [Law63] J. Dennis Lawrence. Certification of Algorithm 158: Exponentiation of series. *Communications of the ACM*, 6(9):522, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lawlor:1964:CAC**

- [Law64] Reed C. Lawlor. Copyright aspects of computer usage. *Communications of the ACM*, 7(10):572–578, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lawson:1967:PLP**

- [Law67] Harold W. Lawson, Jr. PL/I list processing. *Communications of the ACM*, 10(6):358–367, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Linde:1966:OMT**

- [LC66] Richard R. Linde and Paul E. Chaney. Operational management of time-sharing systems. *Communications of the ACM*, 9(7):478, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Leavenworth:1960:AST**

- [Lea60a] B. Leavenworth. Algorithm 24: Solution of tri-diagonal linear equations. *Communications of the ACM*, 3(11):602, November 1960.

CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Leavenworth:1960:ARZ**

- [Lea60b] B. Leavenworth. Algorithm 25: Real zeros of an arbitrary function. *Communications of the ACM*, 3(11):602, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Leavenworth:1961:ACP**

- [Lea61] B. Leavenworth. Algorithm 40: Critical path scheduling. *Communications of the ACM*, 4(3):152–153, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Leavenworth:1964:FIS**

- [Lea64] B. M. Leavenworth. FORTRAN IV as a syntax language. *Communications of the ACM*, 7(2):72–80, February 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Leavenworth:1966:SME**

- [Lea66] B. M. Leavenworth. Syntax macros and extended translation. *Communications of the ACM*, 9(11):790–793, November 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lechner:1961:MCM**

- [Lec61] J. A. Lechner. Machine calculation of moments of a probability distribution. *Communications of the ACM*, 4(12):553–554, December 1961. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Lefkowitz:1963:CAG**

- [Lef63] B. Lefkowitz. Certification of Algorithm 153: GOMORY. *Communications of the ACM*, 6(8):449, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Leibowitz:1963:RDA**

- [Lei63] George J. Leibowitz. Recent developments affecting ADP in tax administration. *Communications of the ACM*, 6(12):704–708, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Leitch:1969:CAG**

- [Lei69] I. M. Leitch. Certification of Algorithm 323 [G6]: Generation of permutations in lexicographic order. *Communications of the ACM*, 12(9):512, September 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [OS68, Roy73].

**Lesk:1967:DCD**

- [Les67] Arthur M. Lesk. Dynamic computation of derivatives. *Communications of the ACM*, 10(9):571–572, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Levine:1961:LSC**

- [Lev61] Syndey P. Levine. Logical structure of compilers. *Communications of the ACM*, 4(3):139, March 1961. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic).

**Levine:1969:ASD**

- [Lev69] David A. Levine. Algorithm 344: Student's  $t$ -distribution [S14]. *Communications of the ACM*, 12(1):37–38, January 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lewis:1963:CMF**

- [Lew63] Theodore S. Lewis. Character manipulation in FORTRAN. *Communications of the ACM*, 6(2):65, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lewis:1975:CPF**

- [Lew75] John Gregg Lewis. Certification of “Algorithm 349: Polygamma functions with arbitrary precision”. *ACM Transactions on Mathematical Software*, 1(4):380–382, December 1975. CODEN ACMSCU. ISSN 0098-3500. See [TS69a].

**Luther:1962:FSC**

- [LG62] H. A. Luther and L. F. Guseman, Jr. A finite sequentially compact process for the adjoints of matrices over arbitrary integral domains. *Communications of the ACM*, 5(8):447–448, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lotsch:1964:AFI**

- [LG64] Helmut Lotsch and Malcolm Gray. Algorithm 244: Fresnel integrals [S20]. *Communications of the ACM*, 7(11):660–661, November



1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [LH61] **Levenson:1961:MC** Judith Levenson and Frank Helwig. The META compiler. *Communications of the ACM*, 4(9):405, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [LG65] **Lapidus:1965:SEA** Arnold Lapidus and Max Goldstein. Some experiments in algebraic manipulation by computer. *Communications of the ACM*, 8(8):501–508, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [LG66] **Leonard:1966:MEM** Gene F. Leonard and John R. Goodroe. More on extensible machines. *Communications of the ACM*, 9(3):183–188, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [LG68a] **Lang:1968:ARI** C. A. Lang and J. C. Gray. ASP — A ring implemented associative structure package. *Communications of the ACM*, 11(8):550–555, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [LG68b] **Lang:1968:PTA** C. A. Lang and J. C. Gray. Programming techniques: ASP—a ring implemented associative structure package. *Communications of the ACM*, 11(8):550–555, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [LHJ68] **Lesem:1968:SAC** L. B. Lesem, P. M. Hirsch, and J. A. Jordan, Jr. Scientific applications: Computer synthesis of holograms for 3-D display. *Communications of the ACM*, 11(10):661–674, October 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Lie60] **Lieblein:1960:CPP** Julius Lieblein. Comments on a previous paper. *Communications of the ACM*, 3(10):536, October 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Lie64] **Lietzke:1964:MSC** Marjorie P. Lietzke. A method of syntax-checking ALGOL 60. *Communications of the ACM*, 7(8):475–478, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Lio66] **Lions:1966:MRU** John Lions. Matrix reduction using the Hungarian method for the generation of school timetables. *Communications of the ACM*, 9(5):349–354, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Lipp:1961:AF**

- [Lip61a] M. F. Lipp. Algorithm 33: Factorial. *Communications of the ACM*, 4(2):106, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lipp:1961:AGF**

- [Lip61b] M. F. Lipp. Algorithm 34: Gamma function. *Communications of the ACM*, 4(2):106, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lippitt:1962:CC**

- [Lip62] A. Lippitt. COBOL and compatibility. *Communications of the ACM*, 5(5):254–255, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ledley:1966:BPS**

- [LJB66] R. S. Ledley, J. Jacobsen, and M. Belson. BUGSYS: a programming system for picture processing—not for debugging. *Communications of the ACM*, 9(2):79–84, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Luh:1965:MMM**

- [LK65] J. Y. S. Luh and R. J. Krolak. Mathematical model for mechanical part description. *Communications of the ACM*, 8(2):125–129, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lockemann:1967:MEO**

- [LK67] Peter C. Lockemann and W. Dale Knutsen. A multiprogramming environment for online data acquisition and analysis. *Communications of the ACM*, 10(12):758–764, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lockemann:1968:IRR**

- [LK68a] Peter C. Lockemann and W. Dale Knutsen. Information retrieval: Recovery of disk contents after system failure. *Communications of the ACM*, 11(8):542, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lockemann:1968:RDC**

- [LK68b] Peter C. Lockemann and W. Dale Knutsen. Recovery of disk contents after system failure. *Communications of the ACM*, 11(8):542–549, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lourie:1966:LTD**

- [LLB66] Janice R. Lourie, John J. Lorenzo, and Abel Bomberault. On-line textile designing. *Communications of the ACM*, 9(7):484, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lloyd:1966:AGP**

- [Llo66] P. Lloyd. Algorithm 278: Graph plotter. *Communications of the ACM*, 9(2):88, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



- [LM65] Robert P. Larsen and M. Morris Mano. Modeling and simulation of digital networks. *Communications of the ACM*, 8(5):308–312, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [LM67] R. E. Levien and M. E. Maron. A computer system for inference execution and data retrieval. *Communications of the ACM*, 10(11):715–721, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [LM69] Edward S. Lowry and C. W. Medlock. Object code optimization. *Communications of the ACM*, 12(1):13–22, January 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [LMM<sup>+</sup>65] J. B. Landwehr, C. McLaughlin, H. Mueller, M. Lichstein, and S. V. Pollack. BLNSYS—a 1401 operating system with Braille capabilities. *Communications of the ACM*, 8(5):300–303, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [LMT62] Norman Landis, Andrew Manos, and L. Richard Turner. Initial experience with an operating multiprogramming system. *Communications of the ACM*, 5(5):282–286, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [LNE63] M. Lehman, Z. Netter, and R. Esched. SABRAC, a time-sharing low-cost computer. *Communications of the ACM*, 6(8):427–429, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Lo67] P. P. Lo. Use Chinese for zero and oh? *Communications of the ACM*, 10(12):757, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Log60] William A. Logan. The basic side of tape labeling. *Communications of the ACM*, 3(2):85–86, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Loh68a] E. Lohse. Correspondences of 8-bit and Hollerith codes for computer environments—a USASI tutorial. *Communications of the ACM*, 11(11):783–789, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Loh68b] E. Lohse. Hollerith punched card code. *Communications of the ACM*, 11(4):275–281, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Lohse:1968:SHF**

- [Loh68c] E. Lohse. Standards: Heading format for data transmission (A US-AAI) tutorial. *Communications of the ACM*, 11(6):441–448, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lohse:1968:SPUa**

- [Loh68d] E. Lohse. Standards: Proposed USA standard: Data code for calendar date for machine-to-machine data interchange. *Communications of the ACM*, 11(4):273–274, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lohse:1968:SPUc**

- [Loh68e] E. L. Lohse. Standards: Proposed USA Standard: Code extension procedures for information interchange. *Communications of the ACM*, 11(12):849–852, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lohse:1968:SPUb**

- [Loh68f] E. L. Lohse. Standards: Proposed USA Standard: Procedures for the standardization process. *Communications of the ACM*, 11(12):846–849, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lohse:1969:DCC**

- [Loh69] E. L. Lohse. Data communications control procedures for the

USA Standard Code for Information Interchange. *Communications of the ACM*, 12(3):166–178, March 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lombardi:1961:TF**

- [Lom61] Lionello Lombardi. Theory of files. *Communications of the ACM*, 4(7):324, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lombardi:1964:GBO**

- [Lom64] Lionello A. Lombardi. A general business-oriented language based on decision expressions. *Communications of the ACM*, 7(2):104–111, February 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Longo:1962:SRC**

- [Lon62] Leonard F. Longo. SURGE: a recoding of the COBOL merchandise control algorithm. *Communications of the ACM*, 5(2):98–100, February 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**London:1970:CAM**

- [Lon70] R. L. London. Certification of “Algorithm 245: Treesort 3 [M1]”: Proof of algorithms — A new kind of certification. *Communications of the ACM*, 13(6):371–374, June 1970. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Flo64a].



**Loomis:1965:BN**

- [Loo65] R. G. Loomis. Boundary networks. *Communications of the ACM*, 8(1):44–48, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lorin:1963:LEO**

- [Lor63] H. Lorin. Letter to the Editor: an omission in mendoza. *Communications of the ACM*, 6(8):421, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lowe:1969:ABP**

- [Low69] Thomas C. Lowe. Analysis of Boolean program models for time-shared, paged environments. *Communications of the ACM*, 12(4):199–205, April 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Loomis:1963:FAW**

- [LR63] R. G. Loomis and J. Rubin. Flexible abbreviation of words in a computer language. *Communications of the ACM*, 6(11):668, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Larson:1962:SAB**

- [LSM62] Richard Larson, Peter Sellers, and Ruben Meyer. Simulation and analysis of biochemical systems: II. solution of differential equations. *Communications of the ACM*, 5(1):63–65, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lohse:1965:CSC**

- [LSTG65] E. Lohse, R. V. Smith, J. F. Traub, and S. Gorn. Character structure and character parity sense for serial-by-bit data communication in the American Standard Code for Information Interchange. *Communications of the ACM*, 8(9):553–556, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lubkin:1960:NA**

- [Lub60] S. Lubkin. A note on approximating  $e^x$ . *Communications of the ACM*, 3(12):649–652, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Luccio:1967:CIR**

- [Luc67] F. Luccio. A comment on index register allocation. *Communications of the ACM*, 10(9):572–574, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ludwig:1963:AIB**

- [Lud63] Oliver G. Ludwig. Algorithm 179: Incomplete beta ratio. *Communications of the ACM*, 6(6):314, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [PS76, BB74].

**Luebbert:1960:PCF**

- [Lue60] William F. Luebbert. Programming compatibility in a family of closely related digital computers. *Communications of the ACM*, 3(7):420–429, July 1960. CODEN



CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Luebbert:1964:MSP**

- [Lue64] William F. Luebbert. Mark sense and port-a-punch programming inputs. *Communications of the ACM*, 7(12):722–723, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lukehard:1963:AKM**

- [Luk63] Phyllis M. Lukehard. Algorithm 218: Kutta Merson. *Communications of the ACM*, 6(12):737–738, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Luther:1963:IFT**

- [Lut63] H. A. Luther. An iterative factorization technique for polynomials. *Communications of the ACM*, 6(3):108–110, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Luther:1964:CIT**

- [Lut64] H. A. Luther. A class of iterative techniques for the factorization of polynomials. *Communications of the ACM*, 7(3):177–179, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ledley:1962:APL**

- [LW62a] Robert S. Ledley and James B. Wilson. Automatic-programming-language translation through syntactical analysis. *Communications of the ACM*, 5(3):145–155, March

1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lipkin:1962:CMC**

- [LW62b] Martin Lipkin and Max A. Woodbury. Coding of medical case history data for computer analysis. *Communications of the ACM*, 5(10):532–534, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lynch:1960:CI**

- [Lyn60] William C. Lynch. Coding isomorphisms. *Communications of the ACM*, 3(2):84–85, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lynch:1962:WBD**

- [Lyn62] W. C. Lynch. On a wired-in binary-to-decimal conversion scheme. *Communications of the ACM*, 5(3):159, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lynch:1965:RSC**

- [Lyn65] W. C. Lynch. Recursive solution of a class of combinatorial problems: An example. *Communications of the ACM*, 8(10):617–620, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lynch:1966:DHC**

- [Lyn66] W. C. Lynch. Description of a high capacity, fast turnaround university computing center. *Communications*



of the *ACM*, 9(2):117–123, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Lynch:1968:CSR**

- [Lyn68] W. C. Lynch. Computer systems: Reliable full-duplex file transmission over half-duplex telephone line. *Communications of the ACM*, 11(6):407–410, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**M:1967:LEP**

- [M.67] J. S. M. Letter to the Editor: The President's letter. *Communications of the ACM*, 10(5):259, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mackinney:1960:ALS**

- [Mac60a] John G. Mackinney. Algorithm 28: Least squares fit by orthogonal polynomials. *Communications of the ACM*, 3(11):604, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mackinney:1960:APT**

- [Mac60b] John G. Mackinney. Algorithm 29: Polynomial transformer. *Communications of the ACM*, 3(11):604, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mackinson:1961:CSP**

- [Mac61a] Thomas N. Mackinson. COBOL: a sample problem. *Communications of the ACM*, 4(8):340–346, August

1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**MacMillan:1961:RAL**

- [Mac61b] D. B. MacMillan. Remark on Algorithm 28: Least-squares fit by orthogonal polynomials. *Communications of the ACM*, 4(12):544, December 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**MacDonald:1962:TCP**

- [Mac62] Clarice MacDonald. Trajectory computation in a problem-oriented language. *Communications of the ACM*, 5(6):356, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**MacGowan:1964:FST**

- [Mac64] Roger A. MacGowan. FORTRAN subroutines for time series data reduction. *Communications of the ACM*, 7(3):153–157, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**MacLaren:1965:APN**

- [Mac65] M. D. MacLaren. Algorithm 272: Procedure for the normal distribution functions [S15]. *Communications of the ACM*, 8(12):789–790, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remarks [HJ67b, Mac68].

**MacLaren:1968:RAP**

- [Mac68] M. D. MacLaren. Remark on Algorithm 272: Procedure for the nor-



mal distribution functions. *Communications of the ACM*, 11(7):498, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Mac65].

**MacLeod:1969:CAK**

- [Mac69] I. D. G. MacLeod. Certification of Algorithm 302 [K2]: Transpose vector stored array. *Communications of the ACM*, 12(6):326, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Madden:1960:LER**

- [Mad60] J. D. Madden. Letter to the Editor: Revisions to the ACM Constitution. *Communications of the ACM*, 3(4):A12, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See response [Hus60d].

**Madnick:1967:PTS**

- [Mad67] Stuart E. Madnick. Programming techniques: String processing techniques. *Communications of the ACM*, 10(7):420–424, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Maher:1961:PSA**

- [Mah61] R. J. Maher. Problems of storage allocation in a multiprocessor multiprogrammed system. *Communications of the ACM*, 4(10):421–422, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Maher:1964:TRG**

- [Mah64] Alice S. Maher. A technique for reading gapless tapes makes electrocardiograph analysis feasible on the IBM 7090. *Communications of the ACM*, 7(11):663–665, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Makinson:1967:AGL**

- [Mak67a] G. J. Makinson. Algorithm 296: Generalized least squares fit by orthogonal polynomials. *Communications of the ACM*, 10(2):87–88, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Makinson:1967:RAL**

- [Mak67b] G. J. Makinson. Remark on Algorithm 28: Least squares fit by orthogonal polynomials. *Communications of the ACM*, 10(5):293, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Makinson:1967:RAG**

- [Mak67c] G. J. Makinson. Remarks on Algorithm 296: Generalized least squares fit by orthogonal polynomials. *Communications of the ACM*, 10(6):377, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Malcolm:1963:SDP**

- [Mal63] W. David Malcolm, Jr. String distribution for the polyphase sort. *Communications of the ACM*, 6(5):217–220, May 1963. CODEN



CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Maloney:1966:MAS**

- [Mal66] Clifford J. Maloney. Multinomial acceptance sampling. *Communications of the ACM*, 9(7):482, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Manker:1963:MS**

- [Man63] Harold H. Manker. Multiphase sorting. *Communications of the ACM*, 6(5):214–217, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mancino:1964:CFC**

- [Man64] O. G. Mancino. Characteristics of the FORTRAN CEP language. *Communications of the ACM*, 7(7):423–424, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mano:1965:PSB**

- [Man65] M. Morris Mano. Pracniques: Simulation of Boolean functions in a decimal computer. *Communications of the ACM*, 8(1):39–40, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remarks [Dod65].

**Mancino:1966:MPF**

- [Man66] O. G. Mancino. Multiple precision floating-point conversion from decimal-to-binary and vice versa. *Communications of the ACM*, 9(5):347–348, May 1966. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Maniotes:1968:LEM**

- [Man68] John Maniotes. Letter to the Editor: on master's level curricula survey. *Communications of the ACM*, 11(12):801, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mapp:1968:PLP**

- [Map68] G. A. Mapp. Proposed library of programs for personnel and related work. *Communications of the ACM*, 11(9):593, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Marcus:1961:NFG**

- [Mar61] Curt F. Marcus. A note on fitting great circles by least squares. *Communications of the ACM*, 4(8):353, August 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Marsaglia:1963:GDR**

- [Mar63] G. Marsaglia. Generating discrete random variables in a computer. *Communications of the ACM*, 6(1):37–38, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Marzocco:1966:MMM**

- [Mar66] Frank N. Marzocco. Man, medicine, mathematics, and machines. *Communications of the ACM*, 9(5):389, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Marsaglia:1968:RNF**

- [Mar68a] George Marsaglia. Random numbers fall mainly in the planes. *Proceedings of the National Academy of Sciences of the United States of America*, 61(1):25–28, September 15, 1968. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic). A popularized account of this work appeared as “Are random numbers really random?” [Scientific Research (Philadelphia, PA), 3 (1968), 21–??]. This widely-cited paper describes the hyper-plane problem that linear congruential generators suffer from, although careful choice of multipliers can minimize its importance: see [CM67b, DH97b, DH97a, DH00].

**Martin:1968:LEB**

- [Mar68b] Bruce A. Martin. Letter to the Editor: On binary notation. *Communications of the ACM*, 11(10):658, October 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Martin:1968:PLB**

- [Mar68c] David F. Martin. Programming languages: Boolean matrix methods for the detection of simple precedence grammars. *Communications of the ACM*, 11(10):685–687, October 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Masterson:1960:CTC**

- [Mas60] Kleber S. Masterson, Jr. Compilation for two computers with NELIAC. *Communications of*

*the ACM*, 3(11):607–611, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Matthewman:1964:DE**

- [Mat64] John H. Matthewman. The dangling “else”. *Communications of the ACM*, 7(3):165, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Matula:1968:BCT**

- [Mat68a] David W. Matula. The base conversion theorem. *Proceedings of the American Mathematical Society*, 19(3):716–723, June 1968. CODEN PAMYAR. ISSN 0002-9939 (print), 1088-6826 (electronic).

**Matula:1968:C**

- [Mat68b] David W. Matula. In-and-out conversions. *Communications of the ACM*, 11(1):47–50, January 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Gol67a, Mat68a].

**Maurer:1966:CEF**

- [Mau66] Ward Douglas Maurer. Computer experiments in finite algebra. *Communications of the ACM*, 9(8):598–603, 643, August 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Maurer:1968:PTI**

- [Mau68] Ward Douglas Maurer. Programming technique: An improved hash code for scatter storage. *Communications of the ACM*, 11(1):35–38, January 1968. CODEN CACMA2.



ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mayoh:1961:LEI**

- [May61a] B. H. Mayoh. Letter to the Editor: Irons' procedure DIAGRAM. *Communications of the ACM*, 4(6):284, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mayoh:1961:ACT**

- [May61b] Brian H. Mayoh. Algorithm 69: Chain tracing. *Communications of the ACM*, 4(9):392, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**May:1962:CAC**

- [May62a] Ronald W. May. Certification of Algorithm 94: Combination. *Communications of the ACM*, 5(11):557, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**May:1962:RAE**

- [May62b] Ronald W. May. Remark on Algorithm 99: Evaluation of Jacobi symbol. *Communications of the ACM*, 5(11):557, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mayoh:1962:AESa**

- [May62c] Brian H. Mayoh. Algorithm 81: Economising a sequence 1. *Communications of the ACM*, 5(3):166–167, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mayoh:1962:AESb**

- [May62d] Brian H. Mayoh. Algorithm 82: Economising a sequence 2. *Communications of the ACM*, 5(3):167, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mayoh:1962:AOC**

- [May62e] Brian H. Mayoh. Algorithm 83: Optimal classification of objects. *Communications of the ACM*, 5(3):167–168, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mayer:1963:SIT**

- [May63] Robert J. Mayer. Selective instruction trap for the 7090. *Communications of the ACM*, 6(3):101, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Marsaglia:1968:OLR**

- [MB68] George Marsaglia and T. A. Bray. One-line random number generators and their use in combinations. *Communications of the ACM*, 11(11):757–759, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mueller:1965:CPS**

- [MC65] R. K. Mueller and L. Cooper. A comparison of the primal-simplex and primal-dual algorithms for linear programming. *Communications of the ACM*, 8(11):682–686, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See letter [BJ66a].



**McKellar:1969:OSO**

- [MC69] A. C. McKellar and Edward G. Coffman, Jr. Operating systems: Organizing matrices and matrix operations for paged memory systems. *Communications of the ACM*, 12(3):153–165, March 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Macleod:1973:RAH**

- [MC73] I. D. G. Macleod and A. M. Collins. Remark on “Algorithm 420: Hidden-line plotting program”. *Communications of the ACM*, 16(7):448, July 1973. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [Wil72, Ell74b, Gai74, Wil73, Ell74a].

**McAllester:1964:PSO**

- [McA64] R. L. McAllester. Polyphase sorting with overlapped rewind. *Communications of the ACM*, 7(3):158–159, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McBeth:1963:LER**

- [McB63] J. Harold McBeth. Letter to the Editor: on the reference counter method. *Communications of the ACM*, 6(9):575, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McCarthy:1960:RFS**

- [McC60] John L. McCarthy. Recursive functions of symbolic expressions and their computation by machine, Part

I. *Communications of the ACM*, 3(4):184–195, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McCormick:1963:GPC**

- [McC63] E. M. McCormick. Group participation computer demonstration. *Communications of the ACM*, 6(9):573–574, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McClure:1964:RGI**

- [McC64a] Robert M. McClure. Remark on Gladwin’s integer conversion. *Communications of the ACM*, 7(7):424, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McCombs:1964:CAG**

- [McC64b] Van K. McCombs. Certification of Algorithm 221: Gamma function. *Communications of the ACM*, 7(10):586, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McCammon:1966:HRD**

- [McC66] Richard B. McCammon. Half rotations in  $N$ -dimensional Euclidean space. *Communications of the ACM*, 9(9):688–689, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McCarthy:1967:LEC**

- [McC67] John McCarthy. Letter to the Editor: Comments on time sharing. *Communications of the ACM*, 10(9):531, September 1967. CODEN



CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McCarthy:1963:LSS**

- [MCD63] John McCarthy, Fernando J. Corbató, and Marjorie M. Daggett. The linking segment subprogram language and linking loader. *Communications of the ACM*, 6(7):391, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McGee:1962:PCM**

- [McG62] William C. McGee. The property classification method of file design and processing. *Communications of the ACM*, 5(8):450–458, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McIlroy:1960:MIE**

- [McI60a] M. Douglas McIlroy. Macro instruction extensions of compiler languages. *Communications of the ACM*, 3(4):214–220, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McIsaac:1960:CAS**

- [McI60b] Paul McIsaac. Combining ALGOL statement analysis with validity checking. *Communications of the ACM*, 3(7):418–419, July 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McIlroy:1963:VMF**

- [McI63] M. D. McIlroy. A variant method of file searching. *Communica-*

*tions of the ACM*, 6(3):101, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McIlroy:1969:LES**

- [McI69a] M. D. McIlroy. Letter to the Editor: A scheme for specifying running titles. *Communications of the ACM*, 12(7):413, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McIlroy:1969:AGS**

- [McI69b] M. Douglas McIlroy. Algorithm 354: Generator of spanning trees [H]. *Communications of the ACM*, 12(9):511, September 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKeeman:1962:ACE**

- [McK62a] William Marshall McKeeman. Algorithm 135: Crout with equilibration and iteration. *Communications of the ACM*, 5(11):553–555, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Mei65].

**McKeeman:1962:AAN**

- [McK62b] William Marshall McKeeman. Algorithm 145: Adaptive numerical integration by Simpson's rule. *Communications of the ACM*, 5(12):604, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKeeman:1962:AMI**

- [McK62c] William Marshall McKeeman. Algorithm 146: Multiple integration.



*Communications of the ACM*, 5 (12):604–605, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKeeman:1962:CAC**

- [McK62d] William Marshall McKeeman. Certification of Algorithm 135: Crout with equilibration and iteration. *Communications of the ACM*, 5 (11):557, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKeeman:1963:AAI**

- [McK63a] William Marshall McKeeman. Algorithm 198: Adaptive integration and multiple integration. *Communications of the ACM*, 6(8):443–444, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKeeman:1963:CAA**

- [McK63b] Wm. M. McKeeman. Certification of Algorithm 145: Adaptive numerical integration by Simpson's rule. *Communications of the ACM*, 6(4):167–168, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKeeman:1964:AFF**

- [McK64a] W. M. McKeeman. Algorithm 239: Free field read. *Communications of the ACM*, 7(8):481–482, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKeeman:1964:RAC**

- [McK64b] William Marshall McKeeman. Remark on Algorithm 135: Crout

with equilibration and iteration. *Communications of the ACM*, 7(7):421, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKay:1965:ANR**

- [McK65a] J. K. S. McKay. Algorithm 262: Number of restricted partitions of  $N$  [A1]. *Communications of the ACM*, 8(8):493, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKay:1965:APG**

- [McK65b] J. K. S. McKay. Algorithm 263: Partition generator [A1]. *Communications of the ACM*, 8(8):493, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKay:1965:AMP**

- [McK65c] J. K. S. McKay. Algorithm 264: Map of partitions into integers [A1]. *Communications of the ACM*, 8(8):493, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKeeman:1965:AAR**

- [McK65d] W. M. McKeeman. Algorithm 268: ALGOL 60 reference language editor [R2]. *Communications of the ACM*, 8(11):667–668, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKeeman:1965:PO**

- [McK65e] W. M. McKeeman. Peephole optimization. *Communications of the ACM*, 8(7):443–444, July



1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKay:1967:ASG**

- [McK67a] J. K. S. McKay. Algorithm 307: Symmetric group characters [A1]. *Communications of the ACM*, 10(7):451–452, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKay:1967:RSP**

- [McK67b] J. K. S. McKay. On the representation of symmetric polynomials. *Communications of the ACM*, 10(7):428–429, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKay:1968:LEE**

- [McK68a] J. K. S. McKay. Letter to the Editor: on the evaluation of multiplicative combinatorial expressions. *Communications of the ACM*, 11(6):392, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKay:1968:RASb**

- [McK68b] J. K. S. McKay. Remark on Algorithm 305 [C1]: Symmetric polynomials. *Communications of the ACM*, 11(4):272, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKay:1968:RASa**

- [McK68c] J. K. S. McKay. Remark on Algorithm 307 [A1]: Symmetric group characters. *Communications of the ACM*, 11(1):14, January 1968. CO-

DEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McNally:1963:LEC**

- [McN63] William D. McNally. Letter to the Editor: Content-oriented computer languages. *Communications of the ACM*, 6(2):51, February 1963.

**McNaughton:1968:DPS**

- [McN68] Robert McNaughton. Education: Doctoral program series: Automata, formal languages, abstract switching, and computability in a Ph.D. computer science program. *Communications of the ACM*, 11(11):738–740, 746, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Marron:1967:ADC**

- [MdM67] B. A. Marron and P. A. D. de Maine. Automatic data compression. *Communications of the ACM*, 10(11):711–715, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Also published in/as: File Organization, Siwerts and Zeitlinge (Amsterdam), 1969.

**Mealy:1961:LEB**

- [Mea61] George Mealy. Letter to the Editor: Boolean rings. *Communications of the ACM*, 4(5):250, May 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mealy:1962:PSW**

- [Mea62] George H. Mealy. Programming systems, whither? *Communications of the ACM*, 5(7):374–375,



July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Medlock:1965:RAG**

- [Med65] C. W. Medlock. Remark on Algorithm 250 [G6]: Inverse permutation. *Communications of the ACM*, 8(11):670, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Meetham:1966:GSW**

- [Mee66] A. R. Meetham. Graph separability and word grouping. *Communications of the ACM*, 9(7):483–484, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Marill:1963:DDT**

- [MEF63] Thomas Marill, Daniel Edwards, and Wallace Feurzeig. DATA-DIAL: two-way communication with computers from ordinary dial telephones. *Communications of the ACM*, 6(10):622–624, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Meissner:1965:RAC**

- [Mei65] Loren P. Meissner. Remark on “Algorithm 135 [F4]: Crout with Equilibration and Iteration”. *Communications of the ACM*, 8(2):104, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [McK62a].

**Meisel:1968:NIF**

- [Mei68] W. S. Meisel. A numerical integration formula useful in Fourier anal-

ysis. *Communications of the ACM*, 11(1):51, January 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mendoza:1962:DPA**

- [Men62] Armando G. Mendoza. A dispersion pass algorithm for the polyphase merge. *Communications of the ACM*, 5(10):502–504, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Merner:1962:ACE**

- [Mer62] J. N. Merner. Algorithm 149: Complete elliptic integral. *Communications of the ACM*, 5(12):605, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Sko78].

**Messham:1969:RAH**

- [Mes69] D. K. Messham. Remark on Algorithm 333 [H]: Minit algorithm for linear programming. *Communications of the ACM*, 12(7):408, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Meyer:1963:CAI**

- [Mey63] Noelle A. Meyer. Certification of Algorithm 73: Incomplete elliptic integrals. *Communications of the ACM*, 6(2):69, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mendicino:1968:LC**

- [MHM<sup>+</sup>68] Sam F. Mendicino, Robert A. Hughes, Jeanne T. Martin, Frank H. McMahon, John E. Ranelletti, and



- Richard G. Zwakenberg. The LRLTRAN compiler. *Communications of the ACM*, 11(11):747–755, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Mif61] Charles J. Mifsud. Algorithm 70: Interpolation by Aitken. *Communications of the ACM*, 4(11):497, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Mif63a] Charles J. Mifsud. Algorithm 154: Combination in lexicographical order. *Communications of the ACM*, 6(3):103, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Mif63b] Charles J. Mifsud. Algorithm 155: Combination in any order. *Communications of the ACM*, 6(3):103, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Mif63c] Charles J. Mifsud. Algorithm 156: Algebra of sets. *Communications of the ACM*, 6(3):103, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Mif63d] Charles J. Mifsud. Algorithm 157: Fourier series approximation. *Communications of the ACM*, 6(3):103, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Mil61] C. E. Miller. Workshops in mathematical programming. *Communications of the ACM*, 4(9):370–371, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Mil62] C. E. Miller. SIGMAP. *Communications of the ACM*, 5(1):1, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Mil64a] James A. Miller. Method for partial rewriting of magnetic tape. *Communications of the ACM*, 7(12):723, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Mil64b] R. H. Miller. An example in “significant-digit” arithmetic. *Communications of the ACM*, 7(1):21, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Mil64c] K. W. Mills. Algorithm 241: Arctangent. *Communications of the ACM*, 7(9):546, September 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mifsud:1961:AIA**

**Miller:1961:WMP**

**Miller:1962:S**

**Mifsud:1963:ACL**

**Miller:1964:MPR**

**Mifsud:1963:ACO**

**Miller:1964:ESD**

**Mifsud:1963:AAS**

**Mills:1964:AA**

**Mifsud:1963:AFS**



**Miles:1966:ICA**

- [Mil66] Courtesy E. P. Miles, Jr. “impact of computer applications on undergraduate mathematics instruction” explored at Florida State-ACM-SIAM symposium. *Communications of the ACM*, 9(5):388–389, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Miller:1968:PTA**

- [Mil68] G. D. Miller. Programming techniques: An algorithm for the probability of the union of a large number of events. *Communications of the ACM*, 11(9):630–631, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Misra:1975:RG**

- [Mis75] Jayadev Misra. Remark on “Algorithm 246: Graycode [Z]”. *ACM Transactions on Mathematical Software*, 1(3):285, September 1975. CODEN ACMSCU. ISSN 0098-3500. See [Boo64c, Er85].

**Moore:1960:DSD**

- [ML60] C. J. Moore and T. S. Lewis. Digital simulation of discrete flow systems. *Communications of the ACM*, 3(12):659–660, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mathews:1967:TFC**

- [MLM67] M. V. Mathews, Carol Lochbaum, and Judith A. Moss. Three fonts

of computer drawn letters. *Communications of the ACM*, 10(10):627–630, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Miller:1963:SMA**

- [MM63] Joan C. Miller and Clifford J. Maloney. Systematic mistake analysis of digital computer programs. *Communications of the ACM*, 6(2):58–63, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mancino:1965:ISF**

- [MM65] O. G. Mancino and M. Morandi Cecchi. The internal structure of the FORTRAN CEP translator. *Communications of the ACM*, 8(3):149–151, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Morenoff:1967:ALC**

- [MM67a] Edward Morenoff and John B. McLean. Application of level changing to a multi-level storage organization. *Communications of the ACM*, 10(3):149–154, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Morenoff:1967:CNN**

- [MM67b] Edward Morenoff and John B. McLean. A code for non-numeric information processing applications in online systems. *Communications of the ACM*, 10(1):19–22, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Moulton:1967:DCE**

- [MM67c] P. G. Moulton and M. E. Muller. DITRAN—a compiler emphasizing diagnostics. *Communications of the ACM*, 10(1):45–52, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Machura:1973:ARF**

- [MM73] Marek Machura and Andrzej Mulawa. Algorithm 450: Rosenbrock function minimization [E4]. *Communications of the ACM*, 16(8):482–483, August 1973. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remarks [Bul74, KK74, Ell74a, Dav76].

**MacLaren:1964:FPG**

- [MMB64a] M. D. MacLaren, G. Marsaglia, and T. A. Bray. A fast procedure for generating exponential random variables. *Communications of the ACM*, 7(5):298–300, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Marsaglia:1964:FPG**

- [MMB64b] G. Marsaglia, M. D. MacLaren, and T. A. Bray. A fast procedure for generating normal random variables. *Communications of the ACM*, 7(1):4–10, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Marshall:1965:LSA**

- [MNW65] S. W. Marshall, J. A. Nelson, and R. M. Wilenzick. Least-squares

analysis of resonance spectra on small computers. *Communications of the ACM*, 8(5):313–314, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Moler:1963:RCM**

- [Mol63] Cleve Moler. Remark on certification of matrix inversion procedures. *Communications of the ACM*, 6(7):389, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mond:1962:LEU**

- [Mon62] Otto Mond. Letter to the Editor: Using an IF statement for bcd comparison. *Communications of the ACM*, 5(2):78, February 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Dic62, Fer62].

**Montalbano:1964:EPR**

- [Mon64] Michael Montalbano. Egler's procedure refuted. *Communications of the ACM*, 7(1):1, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Montillon:1965:CUO**

- [Mon65] George D. Montillon. Computer user-oriented system. *Communications of the ACM*, 8(2):117–124, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Moore:1961:LLA**

- [Moo61a] Donald P. Moore. Library loading with alternate routine selec-



tion. *Communications of the ACM*, 4(11):496, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Moore:1961:TS**

- [Moo61b] Donald P. Moore. Tape splitting. *Communications of the ACM*, 4(11):497, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Moore:1963:CPT**

- [Moo63] Donald P. Moore. Closing out a print tape. *Communications of the ACM*, 6(9):515, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mooers:1966:TPD**

- [Moo66] Calvin N. Mooers. TRAC, A procedure-describing language for the reactive typewriter. *Communications of the ACM*, 9(3):215–219, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mooers:1968:SAS**

- [Moo68] Calvin N. Mooers. Standards: Accommodating standards and identification of programming languages. *Communications of the ACM*, 11(8):574–576, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Morse:1960:RCU**

- [Mor60] Philip M. Morse. Report on a conference of University Computing Center Directors (June 2–4, 1960). *Communications of the ACM*, 3

(10):519–521, October 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Morelock:1964:AEF**

- [Mor64] James C. Morelock. Algorithm 229: Elementary functions by continued fractions. *Communications of the ACM*, 7(5):296, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Morris:1968:ATP**

- [Mor68a] John Morris. Algorithm 321: *t*-Test probabilities [S14]. *Communications of the ACM*, 11(2):115–116, February 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Morris:1968:SST**

- [Mor68b] Robert Morris. Scatter storage techniques. *Communications of the ACM*, 11(1):38–44, January 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Influential survey of the subject of hashing, and first introduction of random probing with secondary clustering. Appears to be the first publication where the word ‘hashing’ appeared, although it was in common use at the time. Knuth [Knu73, p. 542] found only one earlier printed use of the word, in a 1961 unpublished memorandum by W. W. Peterson.

**Morrison:1968:LEA**

- [Mor68c] Donald R. Morrison. Letter to the Editor: Abbreviations for computer and memory sizes. *Communications of the ACM*, 11(3):150,



March 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Morris:1969:ATP**

- [Mor69a] John Morris. Algorithm 346:  $F$ -test probabilities [S14]. *Communications of the ACM*, 12(3):184–185, March 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [CH88].

**Morse:1969:SAC**

- [Mor69b] Stephen P. Morse. Scientific applications: Concepts of use in contour map processing. *Communications of the ACM*, 12(3):147–152, March 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Moshman:1965:SAD**

- [Mos65] Jack Moshman. Should ACM discontinue annual exhibits? *Communications of the ACM*, 8(3):145, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Moses:1966:SSP**

- [Mos66] Joel Moses. Solutions of systems of polynomial equations by elimination. *Communications of the ACM*, 9(8):634–637, August 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Moursund:1967:OSV**

- [Mou67] David G. Moursund. Optimal starting values for Newton–Raphson calculation of  $\sqrt{x}$ . *Communications of the ACM*, 10(7):430–432, July 1967. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic). See letter [Fik67a].

**Martin:1966:GMS**

- [MPS66] W. C. Martin, K. C. Paulson, and L. Sashkin. A general method of systematic interval computation for numerical integration of initial value problems. *Communications of the ACM*, 9(10):754–757, October 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Moore:1961:M**

- [MR61] C. L. Moore and M. L. Ruwe. MAP. *Communications of the ACM*, 4(11):496, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Morrison:1962:NAM**

- [MRZ62] David D. Morrison, James D. Riley, and John F. Zancanaro. Numerical analysis: Multiple shooting method for two-point boundary value problems. *Communications of the ACM*, 5(12):613–614, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McConlogue:1965:AES**

- [MS65] Keren McConlogue and Robert F. Simmons. Analyzing English syntax with a pattern-learning parser. *Communications of the ACM*, 8(11):687–698, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Myer:1968:DDP**

- [MS68] T. H. Myer and I. E. Sutherland. On the design of display processors. *Communications of the ACM*, 11(6):410–414, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Maehly:1960:LEF**

- [MSR60] Hans J. Maehly, J. Svirgals, and J. B. Reid. Letters to the Editor: Fingers or fists? (the choice of decimal or binary representation). *Communications of the ACM*, 3(3):A11–A13, March 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Buc59].

**McCormack:1965:CFI**

- [MSW65] M. A. McCormack, T. T. Schansman, and K. K. Womack. 1401 compatibility feature on the IBM System/360 model 30. *Communications of the ACM*, 8(12):773–776, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKeeman:1963:ANA**

- [MT63] W. M. McKeeman and Larry Tesler. Algorithm 182: Nonrecursive adaptive integration. *Communications of the ACM*, 6(6):315, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McWilliams:1968:MCI**

- [MT68] G. V. McWilliams and R. W. Thompson. Methods of convergence improvement for some improper integrals. *Communications*

*of the ACM*, 11(7):499–502, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**McKeeman:1964:CAN**

- [MTB64] M. McKeeman, Larry Tesler, and Harold S. Butler. Certification of Algorithm 182: Nonrecursive adaptive integration. *Communications of the ACM*, 7(4):244, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mullen:1962:CBP**

- [Mul62a] J. W. Mullen. COBOL batching problems. *Communications of the ACM*, 5(5):278–279, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Muller:1962:FRS**

- [Mul62b] Mervin E. Muller. Further remarks on sampling a tape file—I. *Communications of the ACM*, 5(10):507–508, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Mullin:1962:IMI**

- [Mul62c] J. P. Mullin. An introduction to a machine-independent data division. *Communications of the ACM*, 5(5):277–278, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Muller:1964:PLD**

- [Mul64] David E. Muller. The place of logical design and switching theory in the computer curriculum.



*Communications of the ACM*, 7 (4):222–225, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Muth:1968:RAH**

- [Mut68] John F. Muth. Remark on Algorithm 217 [H]: Minimum excess cost curve. *Communications of the ACM*, 11(8):573, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Macon:1966:MCA**

- [MW66] N. Macon and E. E. Walker. A Monte Carlo algorithm for assigning students to classes. *Communications of the ACM*, 9(5):339–340, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Nadler:1961:DSR**

- [Nad61] Morton Nadler. Division and square root in the quater-imaginary number system. *Communications of the ACM*, 4(4):192–193, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Knu60].

**Nadler:1962:FRS**

- [Nad62a] Morton Nadler. Further remarks on sampling a tape file—II. *Communications of the ACM*, 5(10):508, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Nadler:1962:ICC**

- [Nad62b] Morton Nadler. IFAC conference—corrected impression. *Communications of the ACM*, 5(6):364, June

1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naddor:1967:LEM**

- [Nad67] Eliezer Naddor. Letter to the Editor: M in Z: a game for man-machine studies. *Communications of the ACM*, 10(11):684, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Nagler:1960:ERE**

- [Nag60] H. Nagler. An estimation of the relative efficiency of two internal sorting methods. *Communications of the ACM*, 3(11):618–620, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Nagy:1968:PIT**

- [Nag68] George Nagy. Preliminary investigation of techniques for automated reading of unformatted text. *Communications of the ACM*, 11(7):480–487, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Nakata:1967:CAA**

- [Nak67] Ikuo Nakata. On compiling algorithms for arithmetic expressions. *Communications of the ACM*, 10(8):492–494, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Narasimhan:1966:SDI**

- [Nar66] R. Narasimhan. Syntax-directed interpretation of classes of pictures. *Communications of the ACM*, 9(3):



166–173, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Nather:1961:CSV**

- [Nat61] R. E. Nather. On the compilation of subscripted variables. *Communications of the ACM*, 4(4):169–171, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1960:AES**

- [Nau60a] P. Naur. Algorithm 8: Euler summation. *Communications of the ACM*, 3(5):318, May 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1960:ARK**

- [Nau60b] P. Naur. Algorithm 9: Runge–Kutta integration. *Communications of the ACM*, 3(5):318, May 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1963:ARA**

- [Nau63a] P. Naur. Additional remarks on Algorithm 52: A set of test matrices. *Communications of the ACM*, 6(8):446, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1963:CAJ**

- [Nau63b] P. Naur. Certification of Algorithm 85: Jacobi. *Communications of the ACM*, 6(8):447–448, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1963:CAC**

- [Nau63c] P. Naur. Certification of algorithm for calculating primes by means of GPS. *Communications of the ACM*, 6(1):39, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [KM61].

**Naur:1963:CAMa**

- [Nau63d] P. Naur. Certification of Algorithms 117 and 118: Magic squares (even and odd orders). *Communications of the ACM*, 6(1):39–40, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1963:CAMb**

- [Nau63e] P. Naur. Certification of Algorithms 120 and matrix inversion by Gauss–Jordan inversion II. *Communications of the ACM*, 6(1):40, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1963:CER**

- [Nau63f] P. Naur. Correction to earlier remarks on Algorithm 42: Invert, Algorithm 107: Gauss’s method, Algorithm 120: Inversion II, and gjr. *Communications of the ACM*, 6(8):445, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1963:RAG**

- [Nau63g] P. Naur. Remark on Algorithm 107: Gauss’s method. *Communications of the ACM*, 6(1):39, January 1963. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Naur:1963:RAI**

- [Nau63h] P. Naur. Remarks on Algorithm 42: INVERT. *Communications of the ACM*, 6(1):38, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1963:RCAa**

- [Nau63i] P. Naur. Remarks on and certification of Algorithm 50: Inverse of a finite segment of the Hilbert matrix. *Communications of the ACM*, 6(1):38–39, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1963:RCAb**

- [Nau63j] P. Naur. Remarks on and certification of Algorithm 52: A set of test matrices. *Communications of the ACM*, 6(1):39, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1963:DPA**

- [Nau63k] Peter Naur. Documentation problems: ALGOL 60. *Communications of the ACM*, 6(3):77–79, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1964:CAT**

- [Nau64a] Peter Naur. Certification of Algorithm 122: Tridiagonal matrix. *Communications of the ACM*, 7(3):144–145, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1964:CAS**

- [Nau64b] Peter Naur. Certification of Algorithm 150: SYMINV2. *Communications of the ACM*, 7(3):148, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1964:RAC**

- [Nau64c] Peter Naur. Remarks on Algorithm 91: Chebyshev curve fit. *Communications of the ACM*, 7(5):296, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1965:PSA**

- [Nau65] Peter Naur. The performance of a system for automatic segmentation of programs within an ALGOL compiler (GIER ALGOL). *Communications of the ACM*, 8(11):671–676, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1966:PTV**

- [Nau66a] Peter Naur. Program translation viewed as a general data processing problem. *Communications of the ACM*, 9(3):176–179, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naur:1966:SD**

- [Nau66b] Peter Naur. The science of datalogy. *Communications of the ACM*, 9(7):485, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Naur:1960:RAL**

- [NBB<sup>+</sup>60] Peter Naur, J. W. Backus, F. L. Bauer, J. Green, C. Katz, J. McCarthy, A. J. Perlis, H. Rutishauser, K. Samelson, B. Vauquois, J. H. Wegstein, A. van Wijngaarden, and M. Woodger. Report on the algorithmic language ALGOL 60. *Communications of the ACM*, 3(5):299–314, May 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See letter [AGG60]. Dedicated to the Memory of William Turanski [American group member who was killed by an automobile just prior to the January 1960 Conference].

**Naur:1963:RRA**

- [NBB<sup>+</sup>63] Peter Naur, J. W. Backus, F. L. Bauer, J. Green, C. Katz, J. McCarthy, A. J. Perlis, H. Rutishauser, K. Samelson, B. Vauquois, J. H. Wegstein, A. van Wijngaarden, M. Woodger, and P. Nauer. Revised report on the algorithmic language ALGOL 60. *Communications of the ACM*, 6(1):1–17, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Dedicated to the memory of William Turanski.

**Neal:1960:IET**

- [Nea60] W. R. Neal. Interval estimation of the time in one state to total time ratio in a double exponential process. *Communications of the ACM*, 3(6):361–366, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Neely:1966:CSA**

- [Nee66] Peter M. Neely. Comparison of several algorithms for computation of means, standard deviations and correlation coefficients. *Communications of the ACM*, 9(7):496–499, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See letter [van68b].

**Neilsen:1965:SDT**

- [Nei65] I. R. Neilsen. A simple data transmission system using the office telephone. *Communications of the ACM*, 8(10):634–635, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Neidleman:1967:AF**

- [Nei67] L. D. Neidleman. An application of FORMAC. *Communications of the ACM*, 10(3):167–168, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Nekora:1961:CPP**

- [Nek61] M. R. Nekora. Comment on a paper on parallel processing. *Communications of the ACM*, 4(2):103, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Nelson:1962:MG**

- [Nel62] Richard L. Nelson. Machine graphing. *Communications of the ACM*, 5(12):575, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Nestor:1961:RAR**

- [Nes61] C. W. Nestor, Jr. Remark on Algorithm 53:  $N$ th roots of a complex number. *Communications of the ACM*, 4(7):322, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Newhouse:1962:ACC**

- [New62] Albert Newhouse. Algorithm 91: Chebyshev curve-fit. *Communications of the ACM*, 5(5):281, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See revision [Boo67c].

**Newbery:1963:PME**

- [New63a] A. C. R. Newbery. Pei matrix eigenvectors. *Communications of the ACM*, 6(9):515, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Newell:1963:DIV**

- [New63b] Allen Newell. Documentation of IPL-V. *Communications of the ACM*, 6(3):86–89, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Newhouse:1963:CAA**

- [New63c] Albert Newhouse. Certification of Algorithm 27: Assignment. *Communications of the ACM*, 6(10):618, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Newbery:1964:FTM**

- [New64a] A. C. R. Newbery. A family of test matrices. *Communications*

*of the ACM*, 7(12):724, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Newhall:1964:ACM**

- [New64b] N. S. Newhall. An alternate checksum method. *Communications of the ACM*, 7(8):471, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Newhouse:1965:AFE**

- [New65] Albert Newhouse. Algorithm 270: Finding eigenvectors by Gaussian elimination [F2]. *Communications of the ACM*, 8(11):668–669, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Nickerson:1961:EAL**

- [Nic61] R. C. Nickerson. An engineering application of logic-structure tables. *Communications of the ACM*, 4(11):516–520, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Nievergelt:1964:PMI**

- [Nie64] J. Nievergelt. Parallel methods for integrating ordinary differential equations. *Communications of the ACM*, 7(12):731–733, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Nielsen:1965:SDT**

- [Nie65a] I. R. Nielsen. A simple data transmission system using the office telephone. *Communications of*



- the *ACM*, 8(10):634–635, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). [NK67]
- Nievergelt:1965:ASC**
- [Nie65b] J. Nievergelt. On the automatic simplification of computer programs. *Communications of the ACM*, 8(6):366–370, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Nielsen:1967:STS**
- [Nie67] Norman R. Nielsen. The simulation of time sharing systems. *Communications of the ACM*, 10(7):397–412, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). [Nol68]
- Niessner:1972:RAE**
- [Nie72] Herbert Niessner. Remark on “Algorithm 343: Eigenvalues and eigenvectors of a real general matrix”. *Communications of the ACM*, 15(6):466, June 1972. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [GB68].
- Newcombe:1962:RLM**
- [NK62] Howard B. Newcombe and James M. Kennedy. Record linkage: making maximum use of the discriminating power of identifying information. *Communications of the ACM*, 5(11):563–566, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Nandi:1967:STD**
- Salil K. Nandi and E. V. Krishnamurthy. A simple technique for digital division. *Communications of the ACM*, 10(5):299–301, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Noll:1967:CTD**
- [Nol67] A. Michael Noll. A computer technique for displaying  $N$ -dimensional hyperobjects. *Communications of the ACM*, 10(8):469–473, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Noltemeier:1968:ARP**
- [Nol68] Albert Noltemeier. Algorithm 340: Roots of polynomials by a root-squaring and resultant routine [C2]. *Communications of the ACM*, 11(11):779–782, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Noltemeier:1969:RAC**
- [Nol69] Albert Noltemeier. Remark on Algorithm 340 [C2]: Roots of polynomials by a root-squaring and resultant routine. *Communications of the ACM*, 12(5):281, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Nonweiler:1968:ARL**
- [Non68] Terence R. F. Nonweiler. Algorithm 326: Roots of low-order polynomial equations [C2]. *Communications of the ACM*, 11(4):269–270, April



1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Novotny:1985:RNS**

- [Nov85] Milan Novotny. Remark on “Algorithm 30: Numerical Solution of the Polynomial Equation”. *ACM Transactions on Mathematical Software*, 11(2):183–184, June 1985. CODEN ACMSCU. ISSN 0098-3500. See [Ell60a].

**Nozaki:1964:MIC**

- [Noz64] A. Nozaki. More on integer conversion. *Communications of the ACM*, 7(10):571, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Nather:1960:AAN**

- [NS60] Virginia Nather and Ward C. Sangren. Abstracts — additional nuclear reactor codes. *Communications of the ACM*, 3(1):6–19, January 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Newell:1960:IIP**

- [NT60] Allen Newell and Fred M. Tonge. An introduction to information processing language V. *Communications of the ACM*, 3(4):205–211, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Naylor:1967:MAD**

- [NWW67] Thomas H. Naylor, Kenneth Wertz, and Thomas H. Wonnacott. Methods for analyzing data from computer simulation experiments.

*Communications of the ACM*, 10(11):703–710, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oettinger:1962:RCP**

- [OA62] Anthony G. Oettinger and Howard Aiken. Retiring computer pioneer—. *Communications of the ACM*, 5(6):298–299, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Obradovic:1973:RAM**

- [Obr73] D. Obradović. Remark on “Algorithm 333: Minit algorithm for linear programming”. *Communications of the ACM*, 16(5):310, May 1973. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [SS68, HOK73].

**Oestreicher:1967:GGP**

- [OBS67] M. D. Oestreicher, M. J. Bailey, and J. I. Strauss. GEORGE 3 — A general purpose time-sharing and operating system. *Communications of the ACM*, 10(11):685–693, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**OConnor:1966:EP**

- [O’C66] John O’Connor. On editorial procedures. *Communications of the ACM*, 9(3):136, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oettinger:1965:FCD**

- [Oet65] Anthony F. Oettinger. A forum on centralization and documentation. *Communications of the ACM*, 8



(11):704–710, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oettinger:1966:PLAa**

- [Oet66a] A. G. Oettinger. President’s letter to the ACM membership. *Communications of the ACM*, 9(10):712–713, October 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oettinger:1966:PLAb**

- [Oet66b] A. G. Oettinger. President’s letter to the ACM membership. *Communications of the ACM*, 9(12):838–839, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oettinger:1966:AR**

- [Oet66c] Anthony G. Oettinger. On ACM’s responsibility. *Communications of the ACM*, 9(4):246, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oettinger:1966:VTE**

- [Oet66d] Anthony G. Oettinger. A vision of technology and education. *Communications of the ACM*, 9(7):487–490, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oettinger:1967:PLAa**

- [Oet67a] A. G. Oettinger. President’s letter to the ACM membership. *Communications of the ACM*, 10(3):139–140, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oettinger:1967:PLAb**

- [Oet67b] A. G. Oettinger. President’s letter to the ACM membership. *Communications of the ACM*, 10(6):335–337, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oettinger:1967:PLAc**

- [Oet67c] A. G. Oettinger. President’s letter to the ACM membership. *Communications of the ACM*, 10(8):464–468, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oettinger:1967:HSC**

- [Oet67d] Anthony G. Oettinger. The hardware-software complementarity. *Communications of the ACM*, 10(10):604–606, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oettinger:1967:OED**

- [Oet67e] Anthony G. Oettinger. Oettinger exposes dangers to scientific endeavor inherent in copyright bill. *Communications of the ACM*, 10(5):315–317, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oppenheim:1966:MTM**

- [OH66a] David K. Oppenheim and Dan P. Haggerty. META5: A tool to manipulate strings of data. *Communications of the ACM*, 9(7):483, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Orchard-Hays:1966:MOS**

- [OH66b] William Orchard-Hays. Multilevel operating systems. *Communications of the ACM*, 9(3):189–190, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ohlman:1962:DPC**

- [Ohl62] Herbert Ohlman. Discussion—the pros and cons of a special IR language: pro a special IR language. *Communications of the ACM*, 5(1):8–10, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ohlman:1969:LEG**

- [Ohl69] Herbert Ohlman. Letter to the Editor: a graduated dues structure for ACM. *Communications of the ACM*, 12(6):304, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Organick:1966:CSH**

- [OKCF66] Elliott I. Organick, Thomas A. Keenan, Sylvia Chorp, and Alexandra Forsythe. Computer science in high school mathematics. *Communications of the ACM*, 9(7):474, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Olivier:1961:FNA**

- [Oli61] Donald Olivier. A further note on approximating  $e^x$ . *Communications of the ACM*, 4(7):318, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oliver:1966:USP**

- [Oli66] James R. Oliver. Undergraduate student papers. *Communications of the ACM*, 9(7):479, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oliver:1968:AFa**

- [Oli68] Ian Oliver. Algorithm 330: Factorial analysis of variance [G1]. *Communications of the ACM*, 11(6):431–432, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Olsen:1965:PIT**

- [Ols65] Thomas M. Olsen. Philco/IBM translation at problem-oriented, symbolic and binary levels. *Communications of the ACM*, 8(12):762–768, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Olynyk:1964:ASR**

- [Oly64] F. Olynyk. Algorithm 233: Simpson's rule for multiple integration. *Communications of the ACM*, 7(6):348–349, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**ONeill:1961:PAS**

- [O'N61] Robert W. O'Neill. A preplanned approach to a storage allocating compiler. *Communications of the ACM*, 4(10):417, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Onoe:1962:TWP**

- [Ono62] Morio Onoe. Triangular walk pattern for the down-hill method of solving a transcendental equation. *Communications of the ACM*, 5(7):398, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Opler:1965:POL**

- [Opl65] Ascher Opler. Procedure-oriented language statements to facilitate parallel processing. *Communications of the ACM*, 8(5):306–307, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [And65b].

**Opler:1966:RRT**

- [Opl66] Ascher Opler. Requirements for real-time languages. *Communications of the ACM*, 9(3):196–199, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oppenheim:1964:CAC**

- [Opp64] David K. Oppenheim. Certification of Algorithm 199: Conversions between calendar date and Julian day number. *Communications of the ACM*, 7(11):661, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Orden:1967:EP**

- [Ord67] Alex Orden. The emergence of a profession. *Communications of the ACM*, 10(3):145–147, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Organick:1968:PDC**

- [Org68] Elliott I. Organick. Panel discussion on computer appreciation. *Communications of the ACM*, 11(4):263–268, 272, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ophir:1968:SAB**

- [ORSS68] D. Ophir, S. Rankowitz, B. J. Shepherd, and R. J. Spinrad. Scientific applications: BRAD: the Brookhaven Raster Display. *Communications of the ACM*, 11(6):415–416, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ortega:1964:GTM**

- [Ort64] James M. Ortega. Generation of test matrices by similarity transformations. *Communications of the ACM*, 7(6):377–378, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See comment [Ort85].

**Orth:1968:LES**

- [Ort68] E. J. Orth, Jr. Letter to the Editor: Standardization of hand-coding needed for man-to-machine communication. *Communications of the ACM*, 11(6):391, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ortega:1985:CMI**

- [Ort85] James M. Ortega. Comment on: “Matrices with integer entries and integer eigenvalues” by J.-C. Renaud [Amer. Math. Monthly



**90** (1983), no. 3, 202–203, MR 84c:15024 ] and “Generation of test matrices by similarity transformations” by Ortega [Comm. ACM **7** (1964), 377–378, MR **29** #5375]. *American Mathematical Monthly*, 92(7):526, 1985. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See [Ort64, Ren83].

**Ord-Smith:1967:AGP**

[OS67a] R. J. Ord-Smith. Algorithm 308: Generation of permutations in pseudo-lexicographic order [G6]. *Communications of the ACM*, 10(7):452, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ord-Smith:1967:LER**

[OS67b] R. J. Ord-Smith. Letter to the Editor: Remark on Langdon’s algorithm. *Communications of the ACM*, 10(11):684, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ord-Smith:1967:RAG**

[OS67c] R. J. Ord-Smith. Remarks on Algorithm 87 [G6]: Permutation generator; Algorithm 102 [G6]: Permutation in lexicographical order; Algorithm 130 [G6]: Permute; Algorithm 202 [G6]: Generation of permutations in lexicographical order. *Communications of the ACM*, 10(7):452–453, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ord-Smith:1968:AGP**

[OS68] R. J. Ord-Smith. Algorithm 323: Generation of permutations in lexicographic order [G6]. *Communications of the ACM*, 11(2):117, February 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See certification [Lei69] and remark [Roy73].

**Oser:1960:ARB**

[Ose60] H. Oser. Algorithm 22: Riccati-Bessel functions of first and second kind. *Communications of the ACM*, 3(11):600–601, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ophir:1969:TDC**

[OSS69] D. Ophir, B. J. Shepherd, and R. J. Spinrad. Three-dimensional computer display. *Communications of the ACM*, 12(6):309–310, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oster:1962:MTB**

[Ost62a] C. A. Oster. More on testing BCD words with FORTRAN. *Communications of the ACM*, 5(11):545, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oster:1962:OLB**

[Ost62b] C. A. Oster. One lost bit. *Communications of the ACM*, 5(6):343, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Oster:1964:LBM**

- [Ost64] C. A. Oster. Limited bit manipulation using FORTRAN II. *Communications of the ACM*, 7(12):719–721, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**O'Brien:1968:CAC**

- [OW68a] William M. O'Brien and Joan Wood. Certification of Algorithm 299 [S15]: Chi-squared integral. *Communications of the ACM*, 11(4):271, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Oppenheimer:1968:RMM**

- [OW68b] G. Oppenheimer and N. Weizer. Resource management for a medium-scale time-sharing operating system. *Communications of the ACM*, 11(5):313–322, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Orgass:1969:BMP**

- [OW69] Richard J. Orgass and William M. Waite. A base for a mobile programming system. *Communications of the ACM*, 12(9):507–510, September 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Owens:1965:LEA**

- [Owe65a] David Owens. Letter to the Editor: Avoiding bit manipulation in FORTRAN. *Communications of the ACM*, 8(11):649, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Owens:1965:LEC**

- [Owe65b] David Owens. Letter to the Editor: comments on recent FORTRAN ideas. *Communications of the ACM*, 8(12):788, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Peabody:1962:DSC**

- [PA62] P. R. Peabody and D. S. Adorno. Digital synthesis of correlated stationary noise. *Communications of the ACM*, 5(7):400–401, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Paciorek:1970:AEI**

- [Pac70] K. A. Paciorek. Algorithm 385: Exponential integral  $Ei(x)$ . *Communications of the ACM*, 13(7):446–447, July 1970. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remarks [Red70, Fri72].

**Painter:1960:CPP**

- [Pai60] James A. Painter. Computer preparation of a poetry concordance. *Communications of the ACM*, 3(2):91–95, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pankowicz:1967:FCD**

- [Pan67] Z. L. Pankowicz. Further clarification of dates. *Communications of the ACM*, 10(10):609, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Pankhurst:1968:OSP**

- [Pan68a] R. J. Pankhurst. Operating systems: Program overlay techniques. *Communications of the ACM*, 11(2):119–125, February 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pankiewicz:1968:ACP**

- [Pan68b] W. Pankiewicz. Algorithm 337: Calculation of a polynomial and its derivative values by Horner scheme [C1]. *Communications of the ACM*, 11(9):633, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Parlett:1966:CQR**

- [Par66a] Beresford Parlett. Convergence of the Q-R algorithm for Hessenberg matrices. *Communications of the ACM*, 9(7):475, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Parnas:1966:LDF**

- [Par66b] David L. Parnas. A language for describing the functions of synchronous systems. *Communications of the ACM*, 9(2):72–76, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). SFD-ALGOL.

**Parnas:1966:FPM**

- [Par66c] David L. Parnas. On facilitating parallel and multiprocessing in ALGOL. *Communications of the ACM*, 9(4):257, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Parnas:1966:PRC**

- [Par66d] David L. Parnas. On the preliminary report of C3S. *Communications of the ACM*, 9(4):242–243, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Parnas:1966:STA**

- [Par66e] David L. Parnas. State table analysis of programs in an ALGOL-like language. *Communications of the ACM*, 9(7):481, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Parker:1968:REI**

- [Par68a] Donn B. Parker. Rules of ethics in information processing. *Communications of the ACM*, 11(3):198–201, March 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Parnas:1968:LEI**

- [Par68b] David L. Parnas. Letter to the Editor: on improving the quality of our technical meetings. *Communications of the ACM*, 11(8):537–538, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Parnas:1969:SNP**

- [Par69a] David L. Parnas. On simulating networks of parallel processes in which simultaneous events may occur. *Communications of the ACM*, 12(9):519–531, September 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Parson:1969:CAS**

- [Par69b] Ronald G. Parson. Certification of Algorithm 147 [S14]: PSIF. *Communications of the ACM*, 12(12):691–692, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Ami62, Tha63e].

**Parter:1969:NAP**

- [Par69c] Seymour V. Parter. Numerical analysis in a Ph.D. computer science program. *Communications of the ACM*, 12(12):661–663, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Patrick:1960:SAS**

- [Pat60a] Robert L. Patrick. A start at automatic storage assignment. *Communications of the ACM*, 3(5):321–322, May 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Patterson:1960:WC**

- [Pat60b] G. W. Patterson. What is a code? *Communications of the ACM*, 3(5):315–318, May 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Paterson:1963:SSC**

- [Pat63] J. B. Paterson. Sorting systems: The COBOL sort verb. *Communications of the ACM*, 6(5):255–258, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Paton:1969:AFF**

- [Pat69a] Keith Paton. An algorithm for finding a fundamental set of cycles of a graph. *Communications of the ACM*, 12(9):514–518, September 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Patt:1969:VLT**

- [Pat69b] Yale N. Patt. Variable length tree structures having minimum average search time. *Communications of the ACM*, 12(2):72–76, February 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Payne:1965:LER**

- [Pay65] Robert C. Payne. Letter to the Editor: a reaction to Juncosa's proposal for ACM publications. *Communications of the ACM*, 8(1):71, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Phillips:1962:PME**

- [PBM62] William Phillips, Jr., Anita K. Bahn, and Mabel Miyasaki. Person-matching by electronic methods. *Communications of the ACM*, 5(7):404–407, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pohl:1968:LEI**

- [PD68] Ira Pohl and J. J. Duby. Letter to the Editor: Improved Hamiltonian paths. *Communications of the ACM*, 11(1):1, January 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Peavy:1960:ARE**

- [Pea60] S. Peavy. Algorithm 20: Real exponential integral. *Communications of the ACM*, 3(10):540, October 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Peavy:1961:RAR**

- [Pea61] S. Peavy. Remark on Algorithm 20: Real exponential integral. *Communications of the ACM*, 4(2):105, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pearson:1966:J**

- [Pea66] Charles R. Pearson. On JOE. *Communications of the ACM*, 9(3):136, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Peck:1962:ASD**

- [Pec62a] J. E. L. Peck. Algorithm 139: Solutions of the Diophantine equation. *Communications of the ACM*, 5(11):556, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Peck:1962:ACF**

- [Pec62b] J. E. L. Peck. Algorithm 74: Curve fitting with constraints. *Communications of the ACM*, 5(1):47, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Peck:1962:AF**

- [Pec62c] J. E. L. Peck. Algorithm 75: Factors. *Communications of the ACM*,

5(1):48, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Peck:1964:AGC**

- [Pec64] J. E. L. Peck. Algorithm 237: Greatest common divisor. *Communications of the ACM*, 7(8):481, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pei:1962:TMI**

- [Pei62] M. L. Pei. A test matrix for inversion procedures. *Communications of the ACM*, 5(10):508, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pelta:1960:SP**

- [Pel60] Harold N. Pelta. Selfcipher: Programming. *Communications of the ACM*, 3(2):83, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Peng:1964:PAV**

- [Pen64] K. C. Peng. Programming analysis of variance by sequences of operators and isomorphic mappings. *Communications of the ACM*, 7(7):415–416, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Peng:1966:TCA**

- [Pen66] K. C. Peng. Techniques: Computational aspects of multiple covariance analysis on a multifactor structure. *Communications of the ACM*, 9(7):515–518, July 1966. CODEN CACMA2. ISSN



- 0001-0782 (print), 1557-7317 (electronic).
- [Per60] C. Perry. Conversion between floating point representations. *Communications of the ACM*, 3(6):352, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Per61] Millard H. Perstein. Swift's technique. *Communications of the ACM*, 4(1):A11, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Per62a] C. Perry. Algorithm 78: Rational roots of polynomials with integer coefficients. *Communications of the ACM*, 5(2):97, February 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Per62b] Millard H. Perstein. Algorithm 93: General order arithmetic. *Communications of the ACM*, 5(6):344, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Per63a] J. M. S. Simões Pereira. Algorithm 214:  $q$ -Bessel functions  $I_n(t)$ . *Communications of the ACM*, 6(11):662, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Per63b] Alan J. Perlis. Computation's development critical to our society. *Communications of the ACM*, 6(10):642, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Per64a] J. M. S. Simões Pereira. Algorithm 228:  $Q$ -Bessel functions  $\bar{I}_n(t)$ . *Communications of the ACM*, 7(5):295–296, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Per64b] J. M. S. Simões Pereira. Algorithm 234: Poisson–Charlier polynomials. *Communications of the ACM*, 7(7):420, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Per64c] A. J. Perlis. A format language. *Communications of the ACM*, 7(2):89–97, February 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Per64d] A. J. Perlis. How should ACM publish computer research? *Communications of the ACM*, 7(8):461, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Per64e] A. J. Perlis. Programming of digital computers. *Communications*



- of the *ACM*, 7(4):210–211, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). [Pet65]
- Perry:1964:CTR**
- [Per64f] Clay L. Perry. Comments on tape reels. *Communications of the ACM*, 7(8):506, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Perstein:1964:CCB**
- [Per64g] Millard H. Perstein. Comments on computers in banking. *Communications of the ACM*, 7(8):506, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Perlis:1966:FAN**
- [Per66a] A. J. Perlis. A forum on algorithms: A new policy for algorithms? *Communications of the ACM*, 9(4):255, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Pershing:1966:ZO**
- [Per66b] Michael L. Pershing. On 0 and  $O$ . *Communications of the ACM*, 9(5):371, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Pereira:1969:AAG**
- [Per69] J. M. S. Simões Pereira. Algorithm 355: An algorithm for generating Ising configurations [Z]. *Communications of the ACM*, 12(10):562, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Petrick:1965:MBN**
- S. R. Petrick. More on Backus Normal Form. *Communications of the ACM*, 8(3):200–201, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Letter to the editor.
- Peto:1970:RAM**
- [Pet70] R. Peto. Remark on “Algorithm 347: An efficient algorithm for sorting with minimal storage [M1]”. *Communications of the ACM*, 13(10):624, October 1970. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [GR70, Sin69b].
- Pexton:1964:EBB**
- [Pex64] R. L. Pexton. Empirical bounds for Bessel functions. *Communications of the ACM*, 7(4):263, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Pfaltz:1962:AED**
- [Pfa62] John L. Pfaltz. Algorithm 98: Evaluation of definite complex line integrals. *Communications of the ACM*, 5(6):345, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Parker:1969:ICS**
- [PGBF69] Louis T. Parker, Jr., Thomas M. Gallie, Frederick P. Brooks, Jr., and James K. Ferrell. Introducing computing to smaller colleges and universities: A progress report. *Communications of the ACM*, 12(6):319–323, June 1969. CODEN



CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pike:1965:APR**

- [PH65] M. C. Pike and I. D. Hill. Algorithm 266: Pseudo-random numbers [G5]. *Communications of the ACM*, 8(10):605–606, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See certification [Sul72] and remarks [Han66b, PH66b].

**Pike:1966:ALG**

- [PH66a] M. C. Pike and I. D. Hill. Algorithm 291: Logarithm of gamma function. *Communications of the ACM*, 9(9):684, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pike:1966:RAG**

- [PH66b] M. C. Pike and I. D. Hill. Remark on Algorithm 266 [G5]: Pseudo-random numbers. *Communications of the ACM*, 9(9):687, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [PH65], remark [Han66b], and certification [Sul72].

**Pike:1966:RA**

- [PH66c] M. C. Pike and I. D. Hill. Remarks on: Algorithms 34, 54, 80, 221, and 291. *Communications of the ACM*, 9(9):685–686, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pike:1967:RAI**

- [PH67] M. C. Pike and I. D. Hill. Remark on Algorithm 179: Incomplete Beta ratio. *Communications*

*of the ACM*, 10(6):375–376, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Phillips:1962:CAP**

- [Phi62] E. S. Phillips. Certification of Algorithm 115: Perm. *Communications of the ACM*, 5(12):606, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Perlis:1964:EAM**

- [PI64] A. J. Perlis and Renato Iturriaga. An extension to ALGOL for manipulating formulae. *Communications of the ACM*, 7(2):127–130, February 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pike:1964:CAG**

- [Pik64] M. C. Pike. Certification of Algorithm 209: Gauss. *Communications of the ACM*, 7(8):482, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pike:1965:ARN**

- [Pik65a] M. C. Pike. Algorithm 267: Random normal deviate [G5]. *Communications of the ACM*, 8(10):606, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pike:1965:CAGa**

- [Pik65b] M. C. Pike. Certification of Algorithm 121 [G5]: NormDev. *Communications of the ACM*, 8



- (9):556, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Sha62b].
- [Pik65c] M. C. Pike. Certification of Algorithm 200 [G5]: Normal random. *Communications of the ACM*, 8(9):556, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Geo63a].
- [Pik65d] M. C. Pike. Remark on Algorithm 145 [D1]: Adaptive numerical integration by Simpson's rule. *Communications of the ACM*, 8(3):171, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Pik65e] M. C. Pike. Remark on Algorithm 235 [G6]: Random permutation. *Communications of the ACM*, 8(7):445, July 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Dur64].
- [Pin69] Tad B. Pinkerton. Performance monitoring in a time-sharing system. *Communications of the ACM*, 12(11):608–610, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Pip61] C. A. Piper. Letter to the Editor: Round-off. *Communications of the ACM*, 4(3):A13, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Pit67] M. L. V. Pitteway. Remark on Algorithm 301: Airy function. *Communications of the ACM*, 10(7):453, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Piz66] Stephen M. Pizer. Simulation of radioisotope scans by computer. *Communications of the ACM*, 9(5):358–362, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [PK67] R. J. Parente and H. S. Krasnow. A language for modeling and simulating dynamic systems. *Communications of the ACM*, 10(9):559–567, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [PKT<sup>+</sup>65] Roman C. Pucinski, Allen Kent, Mortimer Taube, Harold Wooster, and Gerard Salton. Invited comments on “centralization of document searching facilities”. *Communications of the ACM*, 8(11):706–707, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [PL65] C. M. Philpott and G. V. Lago. A method of data list processing with



- application to EEG analysis. *Communications of the ACM*, 8(5):327–330, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [PM64] Benson Perry and Mortimer L. Mendelsohn. Picture generation with a standard line printer. *Communications of the ACM*, 7(5):311–313, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Poh64] Hans-J. Pohlmann. Internal sorting. *Communications of the ACM*, 7(9):556, September 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Poh67a] Ira Pohl. A method for finding Hamilton paths and Knight’s tours. *Communications of the ACM*, 10(7):446–449, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Poh67b] Ira Pohl. Phase-structure productions in PL/I. *Communications of the ACM*, 10(12):757, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Pol65] Solomon L. Pollack. Conversion of limited-entry decision tables to computer programs. *Communications of the ACM*, 8(11):677–682, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Pol66a] Solomon L. Pollack. Business data processing. *Communications of the ACM*, 9(7):478, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Pol66b] Solomon L. Pollack. Letter to the Editor: On storage space of decision tables. *Communications of the ACM*, 9(5):320, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Pom65] Tomaso Pomentale. An algorithm for minimizing backboard wiring functions. *Communications of the ACM*, 8(11):699–703, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Poo62] Jesse H. Poore, Jr. Pracniques: Character manipulation in 1620 FORTRAN II. *Communications of the ACM*, 5(12):602, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Poo63] Jesse H. Poore, Jr. Certification of Algorithm 133: Random. *Communications of the ACM*, 6(4):167, April 1963. CODEN CACMA2.



ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pope:1963:EMN**

- [Pop63] David A. Pope. An exponential method of numerical integration of ordinary differential equations. *Communications of the ACM*, 6(8):491–493, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Postley:1960:LE**

- [Pos60] John A. Postley. Letters to the Editor. *Communications of the ACM*, 3(1):A6, January 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Postely:1966:FM**

- [Pos66] John A. Postely. File management. *Communications of the ACM*, 9(7):476, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Potter:1966:CCF**

- [Pot66] Stephen Potter. Correction to a comparison of Fortran language implementation. *Communications of the ACM*, 9(6):412, June 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Penny:1962:UMD**

- [PP62] J. P. Penny and T. Pearcey. Use of multiprogramming in the design of a low cost digital computer. *Communications of the ACM*, 5(9):473–476, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Petrick:1969:CRS**

- [PPR69] Stanley R. Petrick, Paul M. Postal, and Peter S. Rosenbaum. On coordination reduction and sentence analysis. *Communications of the ACM*, 12(4):223–233, April 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pfaltz:1967:CRP**

- [PR67] John L. Pfaltz and Azriel Rosenfeld. Computer representation of planar regions by their skeletons. *Communications of the ACM*, 10(2):119–122, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Payne:1969:CLP**

- [PRB69] W. H. Payne, J. R. Rabung, and T. P. Bogyo. Coding the Lehmer pseudo-random number generator. *Communications of the ACM*, 12(2):85–86, February 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Press:1965:CDT**

- [Pre65] Laurence I. Press. Conversion of decision tables to computer programs. *Communications of the ACM*, 8(6):385–390, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Price:1960:TMW**

- [Pri60] Robert A. Price. Two methods for word inversion on the IBM 709: method 1. *Communications of the ACM*, 3(12):658, December 1960. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Priebe:1964:RMC**

- [Pri64a] Karen B. Priebe. Reduction of a matrix containing polynomial elements. *Communications of the ACM*, 7(7):421, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Priebe:1964:CAK**

- [Pri64b] Karen Boreman Priebe. Certification of Algorithm 218: Kutta Merson. *Communications of the ACM*, 7(10):585–586, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Proll:1969:RAH**

- [Pro69] L. G. Proll. Remark on Algorithm 341 [H]: Solution of linear programs in 0-1 variables by implicit enumeration. *Communications of the ACM*, 12(12):692, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pope:1960:MPA**

- [PS60] David A. Pope and Marvin L. Stein. Multiple precision arithmetic. *Communications of the ACM*, 3(12):652–654, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Peck:1962:AP**

- [PS62a] J. E. L. Peck and G. F. Schrack. Algorithm 86: Permute. *Communications of the ACM*, 5(4):208–209, April 1962. CODEN CACMA2.

ISSN 0001-0782 (print), 1557-7317 (electronic).

**Peck:1962:CAP**

- [PS62b] J. E. L. Peck and G. F. Schrack. Certification of Algorithm 71: Permutation. *Communications of the ACM*, 5(4):209, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pfann:1965:ADE**

- [PS65] Jaroslav Pfann and Josef Straka. Algorithm 269: Determinant evaluation [F3]. *Communications of the ACM*, 8(11):668, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Pike:1976:RIB**

- [PS76] Malcolm C. Pike and Jennie SooHoo. Remark on “Algorithm 179: Incomplete Beta Ratio [S14]”. *ACM Transactions on Mathematical Software*, 2(2):207–208, June 1976. CODEN ACMSCU. ISSN 0098-3500. See remark [Lud63, BB74].

**Perlis:1960:SMT**

- [PT60] Alan J. Perlis and Charles Thornton. Symbol manipulation by threaded lists. *Communications of the ACM*, 3(4):195–204, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Petrone:1964:ISC**

- [PV64] L. Petrone and C. E. Vandoni. Integer and signed constants in ALGOL. *Communications of the*



- ACM*, 7(12):734–735, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [PW66] J. E. L. Peck and M. R. Williams. Algorithm 286: Examination scheduling. *Communications of the ACM*, 9(6):433–434, June 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Pyl62] I. C. Pyle. Character manipulation in FORTRAN. *Communications of the ACM*, 5(8):432–433, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Pyl63] I. C. Pyle. Dialects of FORTRAN. *Communications of the ACM*, 6(8):462–467, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Pyl65] I. C. Pyle. Data input by question and answer. *Communications of the ACM*, 8(4):223–226, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Pyl67a] I. C. Pyle. Format effectors in ISO7 and ASCII. *Communications of the ACM*, 10(3):137, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Pyl67b] I. C. Pyle. Letter to the Editor: Character coding for information processing interchange. *Communications of the ACM*, 10(11):684, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Qui61] M. Ross Quillian. Simulation of human understanding of language. *Communications of the ACM*, 4(9):406, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Qui69] M. Ross Quillian. The Teachable Language Comprehender: A simulation program and theory of language. *Communications of the ACM*, 12(8):459–476, August 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [RA62] D. E. Robison and L. A. Aroian. Regression and coded patterns in data editing. *Communications of the ACM*, 5(7):409–411, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Rab61] Philip Rabinowitz. Multiple-precision division. *Communications of the ACM*, 4(2):98, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Rabinowitz:1962:RAL**

- [Rab62] Irving N. Rabinowitz. Report on the algorithmic language FORTRAN II. *Communications of the ACM*, 5(6):327–337, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rabinowitz:1966:AIF**

- [Rab66] Philip Rabinowitz. Automatic integration of a function with a parameter. *Communications of the ACM*, 9(11):804–806, November 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rabinowitz:1968:NAP**

- [Rab68a] Philip Rabinowitz. Numerical analysis: Practical error coefficients for estimating quadrature errors for analytic functions. *Communications of the ACM*, 11(1):45–46, January 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rabinowitz:1968:PECa**

- [Rab68b] Philip Rabinowitz. Practical error coefficients for estimating quadrature errors for analytic functions. *Communications of the ACM*, 11(1):45–46, January 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rabinowitz:1968:PECb**

- [Rab68c] Philip Rabinowitz. Practical error coefficients in the integration of periodic analytic functions by

the trapezoidal rule. *Communications of the ACM*, 11(11):764–765, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rabinowitz:1969:RRE**

- [Rab69] Philip Rabinowitz. Rough and ready error estimates in Gaussian integration of analytic functions. *Communications of the ACM*, 12(5):268–270, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rader:1961:CAB**

- [Rad61] Patty Jane Rader. Certification of Algorithm 4: Bisection routine. *Communications of the ACM*, 4(3):153, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Radford:1963:LEW**

- [Rad63] Arthur S. Radford. Letter to the Editor: on word combinations. *Communications of the ACM*, 6(9):575, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Raduchel:1971:RAS**

- [Rad71] William J. Raduchel. Remark on “Algorithm 316: Solution of simultaneous nonlinear equations [C5]”. *Communications of the ACM*, 14(7):493–??, 1971. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Bro67b].



**Ralya:1967:CGL**

- [Ral67] Jerry A. Ralya. A comment on Galler's letter. *Communications of the ACM*, 10(8):473, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ramamoorthy:1965:CSP**

- [Ram65] C. V. Ramamoorthy. Code structures for protection and manipulation of variable length items. *Communications of the ACM*, 8(1):35–38, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ramamoorthy:1966:ADD**

- [Ram66] C. V. Ramamoorthy. The analytic design of a dynamic look-ahead and program segmenting system for multiprogrammed computers. *Communications of the ACM*, 9(7):479, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ranshaw:1961:CAM**

- [Ran61] Russell W. Ranshaw. Certification of Algorithm 23: MATHSORT. *Communications of the ACM*, 4(5):238, May 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Randell:1962:CAIb**

- [Ran62a] B. Randell. Certification of Algorithm 50: Inverse of a finite segment of the Hilbert matrix. *Communications of the ACM*, 5(1):50, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Randell:1962:RAS**

- [Ran62b] B. Randell. Remark on Algorithm 76: Sorting procedures. *Communications of the ACM*, 5(6):348, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ranelletti:1965:DFS**

- [Ran65] John E. Ranelletti. Dynamic format specifications. *Communications of the ACM*, 8(8):508–510, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Randell:1969:NSF**

- [Ran69] B. Randell. A note on storage fragmentation and program segmentation. *Communications of the ACM*, 12(7):365–369, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Raphael:1966:AAS**

- [Rap66a] Bertram Raphael. Aspects and applications of symbol manipulation. *Communications of the ACM*, 9(7):476, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Raphael:1966:SPLa**

- [Rap66b] Bertram Raphael. The structure of programming languages. *Communications of the ACM*, 9(2):67–71, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Raphael:1966:SPLb**

- [Rap66c] Bertram Raphael. The structure of programming languages. *Communications of the ACM*, 9(3):155–156, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Randell:1962:CAIa**

- [RB62] B. Randell and C. G. Broyden. Certification of Algorithm 66: INVRs. *Communications of the ACM*, 5(1):50, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rubinoff:1968:IRE**

- [RBCR68] M. Rubinoff, S. Bergman, H. Cautin, and F. Rapp. Information retrieval: Easy English, a language for information retrieval through a remote typewriter console. *Communications of the ACM*, 11(10):693–696, October 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rubinoff:1968:EEI**

- [RBFR68] Morris Rubinoff, Samuel Bergman, Winifred Franks, and Elayne R. Rubinoff. Experimental evaluation of information retrieval through a teletypewriter. *Communications of the ACM*, 11(9):598–604, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rust:1966:SAC**

- [RBS66] B. Rust, W. R. Burrus, and C. Schneeberger. A simple algorithm for computing the general-

ized inverse of a matrix. *Communications of the ACM*, 9(5):381–385, 387, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Raichelson:1964:MCI**

- [RC64] Eugene Raichelson and George Collins. A method for comparing the internal operating speeds of computers. *Communications of the ACM*, 7(5):309–310, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rice:1968:LEG**

John R. Rice and Edsger W. Dijkstra. Letter to the Editor: The go to statement reconsidered. *Communications of the ACM*, 11(8):538, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rudloe:1963:PPI**

- [RDM63] Harry Rudloe, Martin Deutsch, and Thomas Marill. PIP: a photo-interpretive program for the analysis of spark-chamber data. *Communications of the ACM*, 6(6):332–335, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rector:1966:RT**

- [Rec66a] Robert W. Rector. A 3-ring tutorial. *Communications of the ACM*, 9(7):476, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Rector:1966:SP**

- [Rec66b] Robert W. Rector. Statement of principles. *Communications of the ACM*, 9(4):247–253, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Reddy:1967:PPD**

- [Red67] D. R. Reddy. Pitch period determination of speech sounds. *Communications of the ACM*, 10(6):343–348, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Redziejowski:1969:AET**

- [Red69] R. R. Redziejowski. On arithmetic expressions and trees. *Communications of the ACM*, 12(2):81–84, February 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Redish:1970:RAE**

- [Red70] K. A. Redish. Remark on Algorithm 385, Exponential Integral  $Ei(x)$ . *Communications of the ACM*, 13(12):750, December 1970. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Pac70, Fri72].

**Reeves:1964:ACG**

- [Ree64] C. M. Reeves. Algorithm 238: Conjugate gradient method. *Communications of the ACM*, 7(8):481, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Reeves:1966:AGP**

- [Ree66] C. M. Reeves. An algorithm for generating projective reduction formulas for matrix elements of many-electron wavefunctions. *Communications of the ACM*, 9(4):276–279, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Reilly:1965:LEE**

- [Rei65a] E. D. Reilly. Letter to the Editor: On “execute” and “repeat” instructions. *Communications of the ACM*, 8(12):788, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Letter to the editor.

**Reilly:1965:CAS**

- [Rei65b] George A. Reilly. Certification of Algorithm 124 [S17]: Hankel function. *Communications of the ACM*, 8(12):790–791, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Relph:1962:CAE**

- [Rel62a] A. P. Relph. Certification of Algorithm 46: Exponential of a complex number. *Communications of the ACM*, 5(6):347, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Relph:1962:CAL**

- [Rel62b] A. P. Relph. Certification of Algorithm 48: Logarithm of a complex number. *Communications of the ACM*, 5(6):347, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Relph:1962:CAB**

- [Rel62c] A. P. Relph. Certification of Algorithm 57: ber or bei function. *Communications of the ACM*, 5(7):392, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Relph:1962:CAC**

- [Rel62d] A. P. Relph. Certification of Algorithm 67: Cram. *Communications of the ACM*, 5(6):348, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Relph:1962:CAI**

- [Rel62e] A. P. Relph. Certification of Algorithm 70: Interpolation by Aitken. *Communications of the ACM*, 5(7):392, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Relph:1962:CAF**

- [Rel62f] A. P. Relph. Certification of Algorithm 75: Factors. *Communications of the ACM*, 5(7):392, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Relph:1962:CAS**

- [Rel62g] A. P. Relph. Certification of Algorithm 84: Simpson's integration. *Communications of the ACM*, 5(7):392, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Relph:1963:ACP**

- [Rel63a] A. P. Relph. Algorithm 190: Complex power. *Communications of the ACM*, 6(7):388, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Relph:1963:AH**

- [Rel63b] A. P. Relph. Algorithm 191: Hypergeometric. *Communications of the ACM*, 6(7):388, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See certification [Kop74].

**Relph:1963:ACH**

- [Rel63c] A. P. Relph. Algorithm 192: Confluent hypergeometric. *Communications of the ACM*, 6(7):388, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Renaud:1983:MIE**

- [Ren83] J.-C. Renaud. Matrices with integer entries and integer eigenvalues. *American Mathematical Monthly*, 90(3):202–203, 1983. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See comment [Ort85].

**Reynolds:1961:LEP**

- [Rey61a] George E. Reynolds. Letter to the Editor: a program rack. *Communications of the ACM*, 4(6):253, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Reynolds:1961:AGP**

- [Rey61b] S. W. Reynolds. Addendum: "A Generalized Polyphase Merge Algorithm". *Communications of the ACM*, 4(11):495, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Rey61c].

**Reynolds:1961:GPM**

- [Rey61c] Samuel W. Reynolds. A generalized polyphase merge algorithm. *Communications of the ACM*, 4(8):347–349, August 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See addendum [Rey61b].

**Reilly:1965:RSC**

- [RF65] E. D. Reilly, Jr. and F. D. Federighi. On reversible subroutines and computers that run backwards. *Communications of the ACM*, 8(9):557–558, 578, September 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Rei65a].

**Roberts:1966:SGH**

- [RF66] S. M. Roberts and Benito Flores. Systematic generation of Hamiltonian circuits. *Communications of the ACM*, 9(9):690–694, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Roberts:1967:MRM**

- [RF67] S. M. Roberts and Benito Flores. Mr. Roberts and Mr. Flores reply. *Communications of the ACM*, 10(4):202, April 1967. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Reinfelds:1966:ART**

- [RFSC66] Juris Reinfelds, L. A. Flenker, R. N. Seitz, and P. L. Clem, Jr. AMTRAM, a remote-terminal, conversational-mode computer system. *Communications of the ACM*, 9(7):483, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rodriguez-Gil:1963:ASa**

- [RG63a] F. Rodriguez-Gil. Algorithm 188: Smoothing 1. *Communications of the ACM*, 6(7):387, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rodriguez-Gil:1963:ASb**

- [RG63b] F. Rodriguez-Gil. Algorithm 189: Smoothing 2. *Communications of the ACM*, 6(7):387, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rubenstein:1965:CCS**

- [RG65] Herbert Rubenstein and John B. Goodenough. Contextual correlates of synonymy. *Communications of the ACM*, 8(10):627–633, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Royston:1966:MFL**

- [RG66] R. J. Royston and J. Gregory. A method for finding the least squares estimate of the intersection point of two helices in space. *Communications of the ACM*, 9(4):280–284, April 1966. CODEN CACMA2.



ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rice:1961:AA**

- [Ric61a] H. G. Rice. Algorithm 68: Augmentation. *Communications of the ACM*, 4(8):339, August 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Richstone:1961:AML**

- [Ric61b] Morris Richstone. The Applied Mathematics Laboratory of the David W. Taylor Model Basin. *Communications of the ACM*, 4(9):372–375, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rice:1965:RI**

- [Ric65] H. Gordon Rice. Recursion and iteration. *Communications of the ACM*, 8(2):114–115, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Riskin:1961:CAB**

- [Ris61] Bernard N. Riskin. Core allocation based on probability. *Communications of the ACM*, 4(10):454–459, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Randell:1968:DSA**

- [RK68] B. Randell and C. J. Kuehner. Dynamic storage allocation systems. *Communications of the ACM*, 11(5):297–306, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Richter:1964:MI**

- [RM64] J. C. Richter and Geogre H. Mealy. More indiscretions. *Communications of the ACM*, 7(1):2–3, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rotenberg:1963:VWS**

- [RO63] Naomi Rotenberg and Ascher Opler. Variable width stacks. *Communications of the ACM*, 6(10):608–611, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Robbins:1961:UAC**

- [Rob61a] Donald Robbins. Unusual applications: Computer production of peek-A-boo sheets. *Communications of the ACM*, 4(12):562–565, December 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Roberts:1961:GFS**

- [Rob61b] A. E. Roberts, Jr. A general formulation of storage allocation. *Communications of the ACM*, 4(10):419–420, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Robinson:1961:FSM**

- [Rob61c] Stephen M. Robinson. Fitting spheres by the method of least squares. *Communications of the ACM*, 4(11):491, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Robbins:1962:FBD**

- [Rob62] D. K. Robbins. FORTRAN for business data processing. *Communications of the ACM*, 5(7):412–414, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Roberts:1966:GSS**

- [Rob66a] Lawrence G. Roberts. A graphical service system with variable syntax. *Communications of the ACM*, 9(3):173–176, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Roberts:1966:CR**

- [Rob66b] A. E. Roberts, Jr. The construction of recognizers. *Communications of the ACM*, 9(7):481, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Roberts:1967:PDD**

- [Rob67a] A. Hood Roberts. Pinpointing the dates of data examined by the ALPAC. *Communications of the ACM*, 10(10):609, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Robinson:1967:AP**

- [Rob67b] Charles L. Robinson. Algorithm 317: Permutation. *Communications of the ACM*, 10(11):729, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Robson:1969:AGR**

- [Rob69] J. M. Robson. Algorithm 362: Generation of random permutations [G6]. *Communications of the ACM*, 12(11):634–635, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rodman:1963:AM**

- [Rod63a] R. D. Rodman. Algorithm 166: MonteCarlo. *Communications of the ACM*, 6(4):164, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rodman:1963:RAM**

- [Rod63b] R. D. Rodman. Remark on Algorithm 166: MonteCarlo inverse. *Communications of the ACM*, 6(9):523, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rodman:1963:AMM**

- [Rod63c] Robert D. Rodman. Algorithm 196: Muller's method for finding roots of an arbitrary function. *Communications of the ACM*, 6(8):442–443, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rodman:1963:NST**

- [Rod63d] Robert D. Rodman. A note on a set of test matrices for inversion. *Communications of the ACM*, 6(9):515, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Rodden:1967:EFM**

- [Rod67] B. E. Rodden. Error-free methods for statistical computations. *Communications of the ACM*, 10(3):179–180, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rodden:1968:LED**

- [Rod68] B. E. Rodden. Letter to the Editor: In defense of Langdon's algorithm. *Communications of the ACM*, 11(3):150, March 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Roek:1962:ASS**

- [Roe62] Derek Johann Roek. Algorithm 92: Simultaneous system of equations and matrix inversion routine. *Communications of the ACM*, 5(5):286, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Roes:1966:NLP**

- [Roe66] P. B. M. Roes. A note on linear programming algorithm design: a combinatorial problem. *Communications of the ACM*, 9(5):340–342, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rogers:1960:SC**

- [Rog60] James L. Rogers. The sumador chino. *Communications of the ACM*, 3(11):621–622, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rom:1961:MAE**

- [Rom61a] Arnold R. M. Rom. Manipulation of algebraic expressions. *Communications of the ACM*, 4(9):396–398, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rome:1961:RSL**

- [Rom61b] Sydney C. Rome. Research summaries: Leviathan studies. *Communications of the ACM*, 4(4):194, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rosin:1960:IPS**

- [Ros60] Robert F. Rosin. An introductory problem in symbol manipulation for the student. *Communications of the ACM*, 3(9):488–489, September 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ross:1961:CAD**

- [Ros61a] Douglas T. Ross. Computer-aided design. *Communications of the ACM*, 4(5):235, May 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ross:1961:GTS**

- [Ros61b] Douglas T. Ross. A generalized technique for symbol manipulation and numerical calculation. *Communications of the ACM*, 4(3):147–150, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Ross:1961:FSP**

- [Ros61c] H. McG. Ross. Further survey of punched card codes. *Communications of the ACM*, 4(4):182–183, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rosin:1963:LEB**

- [Ros63a] Robert F. Rosin. Letter to the Editor: BCD data in ALGOL 58. *Communications of the ACM*, 6(2):51, February 1963.

**Rossheim:1963:RPA**

- [Ros63b] Robert J. Rossheim. Report on proposed American Standard Flowchart Symbols for Information Processing. *Communications of the ACM*, 6(10):599–604, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rose:1964:EAL**

- [Ros64a] Gene F. Rose. An extension of ALGOL-like languages. *Communications of the ACM*, 7(2):52–61, February 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rosen:1964:CBS**

- [Ros64b] Saul Rosen. A compiler-building system developed by Brooker and Morris: including a comprehensive discussion of the major features of the system. *Communications of the ACM*, 7(7):403–414, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rosenberg:1964:CUA**

- [Ros64c] Arthur M. Rosenberg. Computer-usage accounting for generalized time-sharing systems. *Communications of the ACM*, 7(5):304–308, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ross:1964:CAP**

- [Ros64d] Douglas T. Ross. On context and ambiguity in parsing. *Communications of the ACM*, 7(2):131–133, February 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rose:1965:LER**

- [Ros65a] G. Rose. Letter to the Editor: remarks on computers and aid to the handicapped. *Communications of the ACM*, 8(12):805, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rosin:1965:DCC**

- [Ros65b] Robert F. Rosin. Determining a computing center environment. *Communications of the ACM*, 8(7):463–468, July 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ross:1965:RTE**

- [Ros65c] D. R. Ross. Reducing truncation errors using cascading accumulators. *Communications of the ACM*, 8(1):32–33, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Rosen:1966:RQN**

- [Ros66a] Edward M. Rosen. A review of quasi-Newton methods in nonlinear equation solving and unconstrained optimization. *Communications of the ACM*, 9(7):475, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rosenberg:1966:PSM**

- [Ros66b] Arthur M. Rosenberg. Program structures for the multiprogramming environment. *Communications of the ACM*, 9(7):479, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rosin:1966:LEB**

- [Ros66c] Robert F. Rosin. Letter to the Editor: Bridging the equipment gap for processing 64-character cards. *Communications of the ACM*, 9(9):694, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rosin:1966:P**

- [Ros66d] Robert F. Rosin. On PUFFT. *Communications of the ACM*, 9(2):59, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rosenbaum:1967:GBQ**

- [Ros67a] Peter S. Rosenbaum. A grammar base question-answering procedure. *Communications of the ACM*, 10(10):630–635, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rosin:1967:RPD**

- [Ros67b] Robert F. Rosin. Relative to the President's December letter. *Communications of the ACM*, 10(6):342, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ross:1967:CSI**

- [Ros67c] David Ross. The checkless society: individual authorization of payment. *Communications of the ACM*, 10(6):370, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ross:1967:AFS**

- [Ros67d] Douglas T. Ross. The AED free storage package. *Communications of the ACM*, 10(8):481–492, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Memory is split into zones. Different zones can be managed differently. Ross says that automatic collection in zones is inefficient. No mechanism to handle inter-zonal pointers.

**Rosen:1968:LES**

- [Ros68] Saul Rosen. Letter to the Editor: On selecting the sites for IFIP congresses. *Communications of the ACM*, 11(12):801, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rose:1969:ASS**

- [Ros69a] Donald J. Rose. An algorithm for solving a special class of tridiagonal systems of linear equations.



*Communications of the ACM*, 12 (4):234–236, April 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rosenfeld:1969:CSP**

- [Ros69b] Jack L. Rosenfeld. A case study in programming for parallel processors. *Communications of the ACM*, 12(12):645–655, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rosin:1969:P**

- [Ros69c] R. F. Rosin. Pseudofiles. *Communications of the ACM*, 12(3):165–??, March 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rotenberg:1964:AED**

- [Rot64] Leo J. Rotenberg. Algorithm 224: Evaluation of determinant. *Communications of the ACM*, 7(4):243–244, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Roy:1973:RAG**

- [Roy73] Mohit Kumar Roy. Remark on “Algorithm 323: Generation of permutations in lexicographic order [G6]”. *Communications of the ACM*, 16 (9):577–578, September 1973. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [OS68, Lei69].

**Randell:1963:CAP**

- [RR63] B. Randell and L. J. Russell. Certification of algorithms 63, 64 and 65,

partition, quicksort, and find. *Communications of the ACM*, 6(8):446, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Radin:1965:NHN**

- [RR65] George Radin and H. Paul Rogoway. NPL: Highlights of A new programming language. *Communications of the ACM*, 8(1):9–17, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rice:1966:NNA**

- [RR66] John R. Rice and Saul Rosen. NAPSS—a Numerical Analysis Problem-Solving System. *Communications of the ACM*, 9(7):476, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Robinson:1960:SMM**

- [RS60] S. M. Robinson and G. W. Struble. A short method for measuring error in a least-squares power series. *Communications of the ACM*, 3(6):351, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rich:1965:MHA**

- [RS65a] R. P. Rich and A. G. Stone. Method for hyphenating at the end of a printed line. *Communications of the ACM*, 8(7):444–445, July 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Rosen:1965:PCN**

- [RS65b] J. B. Rosen and S. Suzuki. Practices: Construction of nonlinear programming test problems. *Communications of the ACM*, 8(2):113, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ramsay:1966:RTP**

- [RS66] Karl Ramsay and Jon C. Strauss. A real time priority scheduler. *Communications of the ACM*, 9(7):478, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rosen:1965:PPU**

- [RSD65] Saul Rosen, Robert A. Spurgeon, and Joel K. Donnelly. PUFFT—the Purdue University Fast FORTRAN Translator. *Communications of the ACM*, 8(11):661–666, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rockwell:1966:SIC**

- [RSWM66] M. A. Rockwell, Jr., H. Shubin, M. H. Weil, and P. F. Meagher. Shock III, a computer system as an aid in the management of critically III patients. *Communications of the ACM*, 9(5):355–357, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rader:1961:CAC**

- [RT61] P. J. Rader and Henry C. Thacher, Jr. Certification of Algorithm 14

[not 13]: Complex exponential integral. *Communications of the ACM*, 4(2):105, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Robbins:1964:DCD**

- [RT64] Donald Robbins and W. E. Taylor. Digital computer determination of alpha source activity. *Communications of the ACM*, 7(1):34–38, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rubinoff:1961:DCD**

- [Rub61] Morris Rubinoff.  $N$ -dimensional codes for detecting and correcting multiple errors. *Communications of the ACM*, 4(12):545–551, December 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Russell:1965:LEI**

- [Rus65] Donald B. Russell. Letter to the Editor: on the implementation of SLIP. *Communications of the ACM*, 8(5):263, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rutishauser:1962:ARJ**

- [Rut62a] H. Rutishauser. Algorithm 104: Reduction to Jacobi. *Communications of the ACM*, 5(7):387, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rutishauser:1962:AW**

- [Rut62b] H. Rutishauser. Algorithm 125: Weightcoeff. *Communications of*



*the ACM*, 5(10):510–511, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rutishauser:1963:AS**

- [Rut63a] H. Rutishauser. Algorithm 150: Syminv2. *Communications of the ACM*, 6(2):67–68, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rutishauser:1963:RAS**

- [Rut63b] H. Rutishauser. Remark on Algorithm 150: Syminv2. *Communications of the ACM*, 6(7):390, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Rubinoff:1965:EAR**

- [RW65] Morris Rubinoff and John F. White, Jr. Establishment of the ACM repository and principles of the IR system applied to its operation. *Communications of the ACM*, 8(10):595–600, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ryckman:1961:OCS**

- [Ryc61] George F. Ryckman. Operational compatibility of systems—conventions. *Communications of the ACM*, 4(6):266–267, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ryle:1961:MPD**

- [Ryl61] B. L. Ryle. Multiple programming data processing. *Communications*

*of the ACM*, 4(2):99–101, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1962:ACDb**

- V. H. Smith and M. L. Allen. Algorithm 131: Coefficient determination. *Communications of the ACM*, 5(11):551, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smillie:1964:NCP**

- [SA64] K. W. Smillie and T. H. Anstey. A note on the calculation of probabilities in an F-distribution. *Communications of the ACM*, 7(12):725, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Simonsen:1966:MCF**

- [SA66] Roger H. Simonsen and D. Louise Anketell. Mechanization of the curve fitting process: DATAN. *Communications of the ACM*, 9(4):299–304, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sable:1962:USS**

- [Sab62] J. D. Sable. Use of semantic structure in information systems. *Communications of the ACM*, 5(1):40–43, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sag:1964:APS**

- [Sag64] T. W. Sag. Algorithm 242: Permutations of a set with repetitions. *Communications of the ACM*, 7



(10):585, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salton:1962:MTI**

- [Sal62a] Gerard Salton. The manipulation of trees in information retrieval. *Communications of the ACM*, 5(2):103–114, February 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salzer:1962:QCJ**

- [Sal62b] Herbert E. Salzer. Quick calculation of Jacobian elliptic functions. *Communications of the ACM*, 5(7):399, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salton:1963:LE**

- [Sal63] Gerald Salton. Letters to the Editor. *Communications of the ACM*, 6(2):51, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salton:1964:IRC**

- [Sal64] Gerard Salton. Introduce rigorous controls into Perlis' publication system to make it effective. *Communications of the ACM*, 7(11):646, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salton:1966:DMP**

- [Sal66a] G. Salton. Data manipulation and programming problems in automatic information retrieval. *Communications of the ACM*, 9(3):204–210, March 1966. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salton:1966:IDP**

- [Sal66b] Gerard Salton. Information dissemination and publication control. *Communications of the ACM*, 9(4):254, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salton:1966:RRC**

- [Sal66c] Gerard Salton. On referees, reviewers and critics. *Communications of the ACM*, 9(7):486, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salton:1966:TPP**

- [Sal66d] Gerard Salton. Toward a publications policy for ACM. *Communications of the ACM*, 9(1):2, January 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salton:1966:CPD**

- [Sal66e] Gerhard Salton. Control procedures for data communication—an ASA progress report. *Communications of the ACM*, 9(2):100–105, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salton:1967:CCF**

- [Sal67a] Gerard Salton. Covering the computer field. *Communications of the ACM*, 10(1):2, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Salton:1967:ECG**

- [Sal67b] Gerard Salton. The European computer gap. *Communications of the ACM*, 10(4):203, April 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salton:1968:EFM**

- [Sal68a] G. Salton. Editorial: On the future of mechanical information files. *Communications of the ACM*, 11(1):2, January 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salton:1968:EPS**

- [Sal68b] Gerard Salton. Editorial: professional society publications. *Communications of the ACM*, 11(12):803–804, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salton:1969:ISP**

- [Sal69a] G. Salton. Information science in a Ph.D. computer science program. *Communications of the ACM*, 12(2):111–117, February 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salzer:1969:CIQ**

- [Sal69b] Herbert E. Salzer. Chebyshev interpolation and quadrature formulas of very high degree. *Communications of the ACM*, 12(5):271, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See errata [Sal69c], and *Comm. ACM* 12(12), p. ???, December 1969., 1969.

**Salzer:1969:ECI**

- [Sal69c] Herbert E. Salzer. Errata: “Chebyshev Interpolation and Quadrature Formulas of Very High Degree” by Herbert E. Salzer, *Comm. ACM* 12, 5 (May 1969), 271. *Communications of the ACM*, 12(7):385, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Sal69b].

**Sams:1961:CDS**

- [Sam61a] Burnett H. Sams. The case for dynamic storage allocation. *Communications of the ACM*, 4(10):417–418, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sams:1961:DSA**

- [Sam61b] Burnett H. Sams. Dynamic storage allocation for an information retrieval system. *Communications of the ACM*, 4(10):431–435, October 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sammet:1962:BEC**

- [Sam62a] Jean E. Sammet. Basic elements of COBOL 61. *Communications of the ACM*, 5(5):237–253, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sammet:1962:DPC**

- [Sam62b] Jean E. Sammet. Discussion—the pros and cons of a special IR language: comments. *Communications of the ACM*, 5(1):8, January 1962. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Samet:1965:CAS**

- [Sam65a] P. A. Samet. Certification of Algorithm 234 [S23]: Poisson–Charlier polynomials. *Communications of the ACM*, 8(2):105, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Samet:1965:SA**

- [Sam65b] P. A. Samet. Subroutine assembly. *Communications of the ACM*, 8(1):34, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Samet:1965:LEI**

- [Sam65c] Paul A. Samet. Letter to the Editor: IFIP 65: another view. *Communications of the ACM*, 8(12):788, 805, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sammet:1966:MC**

- [Sam66a] Jean E. Sammet. More on CR 8570. *Communications of the ACM*, 9(6):410–412, June 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sammet:1966:SFM**

- [Sam66b] Jean E. Sammet. Survey of formula manipulation. *Communications of the ACM*, 9(8):555–569, August 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sammet:1966:UEP**

- [Sam66c] Jean E. Sammet. The use of English as a programming language. *Communications of the ACM*, 9(3):228–230, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sanders:1961:LEN**

- [San61] Norman Sanders. Letter to the Editor: Northwest Computing Association. *Communications of the ACM*, 4(3):A13, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sanborn:1963:PSI**

- [San63a] Thomas G. Sanborn. Pracniques: Self-inverse conversion table. *Communications of the ACM*, 6(6):310, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sanders:1963:TCS**

- [San63b] M. Sanders. Telefile: a case study of an online savings bank application. *Communications of the ACM*, 6(12):708–712, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sanderson:1965:LES**

- [San65] J. G. Sanderson. Letter to the Editor: On simple, low redundancy languages. *Communications of the ACM*, 8(10):593, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Letter to the editor.



**Sarafyan:1959:NMC**

- [Sar59] Diran Sarafyan. A new method of computation of square roots without using division. *Communications of the ACM*, 2(11):23–24, November 1959. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See comments [Tra60b].

**Sarafyan:1960:DCS**

- [Sar60] Diran Sarafyan. Divisionless computation of square roots through continued squaring. *Communications of the ACM*, 3(5):319–321, May 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sassouni:1961:ACC**

- [Sas61] Papken Sassouni. Algorithm 39: Correlation coefficients with matrix multiplication. *Communications of the ACM*, 4(3):152, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sattley:1961:ASA**

- [Sat61a] Kirk Sattley. Allocation of storage for arrays in ALGOL 60. *Communications of the ACM*, 4(1):60–65, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sattley:1961:LEC**

- [Sat61b] Kirk Sattley. Letter to the Editor: corrections to Sattley paper in January *Communications*. *Communications of the ACM*, 4(5):211, May 1961. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic).

**Sauer:1969:RAR**

- [Sau69] G. Sauer. Remark on Algorithm 268 [R2]: ALGOL 60 reference language editor. *Communications of the ACM*, 12(7):407, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Savage:1964:HC**

- [Sav64] T. R. Savage. The hyphen controversy. *Communications of the ACM*, 7(4):203, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Savidge:1966:TIC**

- [Sav66] D. V. Savidge. Toward improved communication capability. *Communications of the ACM*, 9(3):136, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sayre:1969:AFP**

- [Say69a] D. Sayre. Is automatic “folding” of programs efficient enough to displace manual? *Communications of the ACM*, 12(12):656–660, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sayre:1969:APE**

- [Say69b] D. Sayre. Is automatic ‘folding’ of programs efficient enough to displace manual. *Communications of the ACM*, 12(12):656–660, December 1969. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Samelson:1960:SFT**

- [SB60] K. Samelson and Friedrich L. Bauer. Sequential formula translation. *Communications of the ACM*, 3(2):76–83, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Addendum, 351.

**Shoffner:1963:PLS**

- [SB63] Miriam G. Shoffner and Peter J. Brown. Programming languages: A suggested method of making fuller use of strings in ALGOL 60. *Communications of the ACM*, 6(4):169–171, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shoshani:1969:SPA**

- [SB69] A. Shoshani and A. J. Bernstein. Synchronization in a parallel accessed data base. *Communications of the ACM*, 12(11):604–607, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schultz:1964:SMC**

- [SBS64] Claire K. Schultz, Alan Brooks, and Phyllis Schwartz. Scheduling meetings with a computer. *Communications of the ACM*, 7(9):534–541, September 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schmittroth:1960:NIL**

- [Sch60] Louis A. Schmittroth. Numerical inversion of Laplace transforms.

*Communications of the ACM*, 3(3):171–173, March 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schaefer:1962:AHF**

- [Sch62a] L. J. Schaefer. Algorithm 124: Hankel function. *Communications of the ACM*, 5(9):483, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schrack:1962:CAPb**

- [Sch62b] G. F. Schrack. Certification of Algorithm 115: Perm. *Communications of the ACM*, 5(10):514, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schuff:1962:SVU**

- [Sch62c] H. K. Schuff. A subjective viewpoint—the use of digital computers in Western Germany. *Communications of the ACM*, 5(12):615–617, 628, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schwarz:1962:IAT**

- [Sch62d] H. R. Schwarz. An introduction to ALGOL: a tutorial paper on ALGOL with explanations and examples to make the use of the ALGOL report more familiar. *Communications of the ACM*, 5(2):82–95, February 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Scheff:1963:CER**

- [Sch63a] Benson H. Scheff. A catalogue entry retrieval system. *Communications of the ACM*, 6(7):409–412, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Scheinok:1963:CEV**

- [Sch63b] Perry A. Scheinok. A computational extension of the variate difference method. *Communications of the ACM*, 6(3):107–108, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schick:1963:DS**

- [Sch63c] T. Schick. Disk-file sorting. *Communications of the ACM*, 5(6):330–331, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schick:1963:DFS**

- [Sch63d] Thomas Schick. Disk file sorting. *Communications of the ACM*, 6(6):330–331, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schubert:1963:ALI**

- [Sch63e] George R. Schubert. Algorithm 210: Lagrangian interpolation. *Communications of the ACM*, 6(10):616, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schubert:1963:AH1**

- [Sch63f] George R. Schubert. Algorithm 211: Hermite interpolation. *Com-*

*munications of the ACM*, 6(10):617, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schubert:1963:CAS**

- [Sch63g] George R. Schubert. Certification of Algorithm 175: Shuttle-sort. *Communications of the ACM*, 6(10):619, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schubert:1963:RAF**

- [Sch63h] George R. Schubert. Remark on Algorithm 157: Fourier series approximation. *Communications of the ACM*, 6(10):618, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schwarz:1963:ARS**

- [Sch63i] H. R. Schwarz. Algorithm 183: Reduction of a symmetric bandmatrix to triple diagonal form. *Communications of the ACM*, 6(6):315–316, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schubert:1964:RTE**

- [Sch64a] George R. Schubert. On reducing truncation errors by programming. *Communications of the ACM*, 7(10):571, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schumaker:1964:CAS**

- [Sch64b] Larry Schumaker. Certification of Algorithm 215: Shanks. *Communications of the ACM*, 7(5):297, May



1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schmid:1965:EA**

- [Sch65a] L. P. Schmid. Efficient autocorrelation. *Communications of the ACM*, 8(2):115, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schmidt:1965:LES**

- [Sch65b] Lee Schmidt. Letter to the Editor: on syntax specification. *Communications of the ACM*, 8(5):262, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Scheff:1966:SUO**

- [Sch66a] Benson H. Scheff. A simple user-oriented compiler source language for programming automatic test equipment. *Communications of the ACM*, 9(4):258–266, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Scherer:1966:NPE**

- [Sch66b] Robert G. Scherer. The new partnership—EDP and management valuable or violent in the 1970's. *Communications of the ACM*, 9(7):478, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schwartz:1966:OP**

- [Sch66c] Jules I. Schwartz. Online programming. *Communications of the ACM*, 9(3):199–203, March 1966. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic).

**Scharf:1967:MPC**

- [Sch67] Tom Scharf. More on processing 64-channel cards. *Communications of the ACM*, 10(3):138, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schurmann:1968:BAG**

- [Sch68] A. Schurmann. Business applications: GAN, a system for generating and analyzing activity networks. *Communications of the ACM*, 11(10):675–679, October 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schneider:1969:GTM**

- [Sch69a] A. J. Schneider. Generation of test matrices having certain sign patterns and prescribed positive spectra. *Communications of the ACM*, 12(7):378–379, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schreyer:1969:CAF**

- [Sch69b] Norman L. Schreyer. Certification of Algorithm 328 [F4]: Chebyshev solution to an overdetermined linear system. *Communications of the ACM*, 12(6):326, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schroeder:1969:ICM**

- [Sch69c] M. R. Schroeder. Images from computers and microfilm plotters. *Communications of the ACM*, 12



(2):95–101, February 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schryer:1969:CA**

- [Sch69d] N. L. Schryer. Certification of Algorithm 328 [F4]: “Chebyshev Solution to an Overdetermined Linear System (Richard H. Bartels and Gene H. Golub, Comm. ACM 11(6) 428 (1968))”. *Communications of the ACM*, 12(6):326, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [BG68a].

**Schuegraf:1972:RAL**

- [Sch72a] Ernst Schuegraf. Remark on “Algorithm 176: Least squares surface fit”. *Communications of the ACM*, 15(12):1073–??, 1972. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Art63].

**Schuegraf:1972:RAB**

- [Sch72b] Ernst Schuegraf. Remark on “Algorithm 195: BANDSOLVE”. *Communications of the ACM*, 15(12):1074–??, 1972. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Thu63].

**Scowen:1963:CAA**

- [Sco63] R. S. Scowen. Certification of Algorithm 173: Assign. *Communications of the ACM*, 6(10):619, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Scofield:1964:LEF**

- [Sco64] John M. Scofield. Letter to the Editor: Further comment on the MIR-FAC controversy. *Communications of the ACM*, 7(12):736, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Scowen:1965:AQ**

- [Sco65] R. S. Scowen. Algorithm 271: Quicksort. *Communications of the ACM*, 8(11):669–670, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shriver:1969:APF**

- [SED69] Bruce Shriver, P. J. Eberlein, and R. D. Dixon. Algorithm 361: Permanent function of a square matrix I and II [G6]. *Communications of the ACM*, 12(11):634, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Seehof:1966:AFL**

- [SEFQ66] J. Seehof, W. Evans, J. Friederichs, and J. Quigley. Automated facilities layout program. *Communications of the ACM*, 9(7):478, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sackman:1968:EES**

- [SEG68] H. Sackman, W. J. Erikson, and E. E. Grant. Exploratory experimental studies comparing on-line and offline programming performance. *Communications of*



- the ACM*, 11(1):3–11, January 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). [SH66]
- Semarne:1961:APJ**
- [Sem61] H. M. Semarne. Another participant in JUG. *Communications of the ACM*, 4(1):A11, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Senko:1960:CSL**
- [Sen60] Michael E. Senko. A control system for logical block diagnosis with data loading. *Communications of the ACM*, 3(4):236–240, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Seraphin:1969:NAF**
- [Ser69] Dominic S. Seraphin. Numerical analysis: A fast random number generator for IBM 360. *Communications of the ACM*, 12(12):695, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Shantz:1967:WUW**
- [SGM<sup>+</sup>67] Peter W. Shantz, R. A. German, J. G. Mitchell, R. S. K. Shirley, and C. R. Zarnke. WATFOR—the University of Waterloo FORTRAN IV compiler. *Communications of the ACM*, 10(1):41–44, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Schlater:1966:SCB**
- J. E. Schlater and W. J. Hemmerle. Statistical computations based upon algebraically specified models. *Communications of the ACM*, 9(12):865–869, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Shannon:1967:SPB**
- [SH67] Stan Shannon and Claudia Henschke. Stat-Pack: a biostatistical programming package. *Communications of the ACM*, 10(2):123–125, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Shaefer:1962:AHF**
- [Sha62a] Luis J. Shaefer. Algorithm 124: Hankel function. *Communications of the ACM*, 5(9):483, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- Shafer:1962:AN**
- [Sha62b] David Shafer. Algorithm 121: NormDev. *Communications of the ACM*, 5(9):482, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Pik65b].
- Shaffer:1962:CSI**
- [Sha62c] Stuart S. Shaffer. Current status of IPL-V for the Philco 2000 computer (June 1962). *Communications of the ACM*, 5(9):479, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Shantz:1963:AGS**

- [Sha63a] Peter W. Shantz. Algorithm 220: Gauss–Seidel. *Communications of the ACM*, 6(12):739, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shaw:1963:JD**

- [Sha63b] Christopher J. Shaw. Jovial and its documentation. *Communications of the ACM*, 6(3):89–91, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shaw:1963:SSJ**

- [Sha63c] Christopher J. Shaw. Standards: A specification of JOVIAL. *Communications of the ACM*, 6(12):721–736, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shaw:1964:DAC**

- [Sha64] Christopher J. Shaw. On declaring arbitrarily coded alphabets. *Communications of the ACM*, 7(5):288–290, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shavell:1965:UFS**

- [Sha65] Zalman A. Shavell. The use of FORTRAN in subroutines with COBOL main programs. *Communications of the ACM*, 8(4):221–223, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shalla:1966:AAE**

- [Sha66a] Leon Shalla. Automatic analysis of electronic digital circuits using list processing. *Communications of the ACM*, 9(5):372–380, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shaw:1966:ASC**

- [Sha66b] Chris Shaw. ACM Southern California's symposium poses Adventureland, Frontierland, Fantasyland .... *Communications of the ACM*, 9(5):390–391, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shaw:1966:PLS**

- [Sha66c] Christopher J. Shaw. Programming languages for symbolic numeric and hybrid computation. *Communications of the ACM*, 9(7):483, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shaw:1968:LED**

- [Sha68] Christopher J. Shaw. Letter to the Editor: on the development of a new common computer languages. *Communications of the ACM*, 11(6):391, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sherman:1960:CTC**

- [She60] P. M. Sherman. Comments on a technique for counting ones. *Communications of the ACM*, 3(10):538, October 1960. CODEN CACMA2.



ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sherman:1961:TLT**

- [She61] P. M. Sherman. Table look-at techniques. *Communications of the ACM*, 4(4):172–173, 175, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shen:1963:AGP**

- [She63] Mok-Kong Shen. Algorithm 202: Generation of permutations in lexicographical order. *Communications of the ACM*, 6(9):517, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See also [Ell65].

**Sherman:1966:FCP**

- [She66] Philip M. Sherman. FLOW-TRACE, a computer program for flowcharting programs. *Communications of the ACM*, 9(12):845–854, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shedler:1967:PNM**

- [She67] G. S. Shedler. Parallel numerical methods for the solution of equations. *Communications of the ACM*, 10(5):286–291, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shimrat:1962:APP**

- [Shi62] M. Shimrat. Algorithm 112: Position of point relative to polygon. *Communications of the ACM*, 5(8):434, August 1962. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shimrat:1964:APT**

- [Shi64] M. Shimrat. Algorithm 223: Prime twins. *Communications of the ACM*, 7(4):243, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Show:1968:AAG**

- [Sho68] Richard H. Show. Algorithms: Algorithm 342: Generator of random numbers satisfying the Poisson distribution. *Communications of the ACM*, 11(12):819–820, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shuchter:1960:MP**

- [Shu60] Jerome P. Shuchter. Marriage—with problems. *Communications of the ACM*, 3(2):87–90, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Shumway:1967:EGA**

- [Shu67] R. H. Shumway. On the expected gain from adjusting matched term retrieval systems. *Communications of the ACM*, 10(11):722–725, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sibley:1961:SS**

- [Sib61] R. A. Sibley. The SLANG system. *Communications of the ACM*, 4(1):75–84, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Sidlo:1961:MP**

- [Sid61] C. M. Sidlo. The making of a profession. *Communications of the ACM*, 4(9):366–367, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sigillito:1966:MFM**

- [Sig66] V. G. Sigillito. A method for finding the  $m$  smallest values of a monotonic function defined on ordered sets of positive integers. *Communications of the ACM*, 9(7):519–521, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Silver:1960:AA**

- [Sil60a] Roland Silver. Algorithm 27: Assignment. *Communications of the ACM*, 3(11):603–604, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Silver:1960:AAP**

- [Sil60b] Roland Silver. An algorithm for the assignment problem. *Communications of the ACM*, 3(11):605–606, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wagner:1960:LER**

- [Sil60c] Roland Silver. Letter to the Editor: Rounding in floating-point arithmetic. *Communications of the ACM*, 3(12):A9, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Silverman:1969:RAE**

- [Sil69] Gary Silverman. Remark on Algorithm 315 [E4, C5]: The damped Taylor's series method for minimizing a sum of squares and for solving systems of nonlinear equations [H. Späth, Comm. ACM 10 (Nov. 1967), 726]. *Communications of the ACM*, 12(9):513, September 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Spä67c].

**Simmons:1961:S**

- [Sim61] R. F. Simmons. Synthes. *Communications of the ACM*, 4(3):140, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Simonsen:1962:SCT**

- [Sim62] Roger H. Simonsen. Simulation of a computer timing device. *Communications of the ACM*, 5(7):383–384, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Simmons:1965:AEQ**

- [Sim65] R. F. Simmons. Answering English questions by computer: a survey. *Communications of the ACM*, 8(1):53–70, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Simmons:1966:SRA**

- [Sim66] R. F. Simmons. Storage and retrieval of aspects of meaning in directed graph structures. *Communications of the ACM*, 9(3):211–215, March 1966. CODEN CACMA2.



ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sims:1967:CAT**

- [Sim67] Lee S. Sims. Certification of Algorithm 258: Transport and Algorithm 293: Transportation problem. *Communications of the ACM*, 10(7):453, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**SimoesPereira:1969:AGI**

- [Sim69] J. M. S. Simoes Pereira. An algorithm for generating Ising configurations. *Communications of the ACM*, 12(10):562–??, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Singleton:1967:CFF**

- [Sin67] Richard C. Singleton. On computing the fast Fourier transform. *Communications of the ACM*, 10(10):647–654, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Singleton:1968:AAPa**

- [Sin68a] Richard C. Singleton. Algorithm 338: Algol procedures for the Fast Fourier Transform [C6]. *Communications of the ACM*, 11(11):773–776, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Singleton:1968:AAPb**

- [Sin68b] Richard C. Singleton. Algorithm 339: An Algol procedure for the Fast Fourier Transform with arbitrary factors [C6]. *Communi-*

*cations of the ACM*, 11(11):776–779, November 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Singleton:1969:AAC**

- [Sin69a] Richard C. Singleton. Algorithm 345: An Algol convolution procedure based on the Fast Fourier Transform [C6]. *Communications of the ACM*, 12(3):179–184, March 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Singleton:1969:AEA**

- [Sin69b] Richard C. Singleton. Algorithm 347: An efficient algorithm for sorting with minimal storage [M1]. *Communications of the ACM*, 12(3):185–187, March 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remarks [GR70, Pet70].

**Singleton:1969:APN**

- [Sin69c] Richard C. Singleton. Algorithm 356: A prime number generator using the treesort principle [A1]. *Communications of the ACM*, 12(10):563, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Singleton:1969:AEP**

- [Sin69d] Richard C. Singleton. Algorithm 357: An efficient prime number generator [A1]. *Communications of the ACM*, 12(10):563–564, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [De 73].



**Singleton:1969:RAC**

- [Sin69e] Richard C. Singleton. Remark on Algorithm 339 [C6]: An Algol procedure for the Fast Fourier Transform with arbitrary factors. *Communications of the ACM*, 12(3):187, March 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schwartz:1964:GCP**

- [SK64] Eugene S. Schwartz and Bruce Kallick. Generating a canonical prefix encoding. *Communications of the ACM*, 7(3):166–169, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stroud:1969:CNI**

- [SK69] A. H. Stroud and J. P. Kohli. Computation of  $J_n(x)$  by numerical integration. *Communications of the ACM*, 12(4):236–238, April 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Skaft:1966:ASW**

- [Ska66] Michael S. Skaft. An approximate solution to a weighted scheduling problem with multiple constraints. *Communications of the ACM*, 9(7):480, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Skinner:1968:LET**

- [Ski68] Mel Skinner. Letter to the Editor: A tactical assault on systems procurement. *Communications of the ACM*, 11(9):593, September

1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Skovgaard:1975:RBF**

- [Sko75a] Ove Skovgaard. Remark on “Algorithm 236: Bessel Functions of the First Kind [S17]”. *ACM Transactions on Mathematical Software*, 1(3):282–284, September 1975. CODEN ACMSCU. ISSN 0098-3500. See [Gau64a].

**Skovgaard:1975:RAJ**

- [Sko75b] Ove Skovgaard. Remark on “Algorithm 332: Jacobi polynomials”. *Communications of the ACM*, 18(2):116–117, 1975. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Wit68].

**Skovgaard:1978:RCE**

- [Sko78] Ove Skovgaard. Remark on “Algorithm 149: Complete Elliptic Integral [S21]”. *ACM Transactions on Mathematical Software*, 4(1):95, March 1978. CODEN ACMSCU. ISSN 0098-3500. See [Mer62].

**Siler:1962:CMR**

- [SL62] William Siler and John S. Laughlin. A computer method for radiation treatment planning. *Communications of the ACM*, 5(7):407–408, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salton:1965:SAD**

- [SL65] G. Salton and M. E. Lesk. The SMART automatic document retrieval systems—an illustration. *Communications of the ACM*, 8



- (6):391–398, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [SL68] G. W. Stewart, III and Dale W. Lick. Numerical analysis: Numerical solution of a thin plate heat transfer problem. *Communications of the ACM*, 11(9):639–641, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Sla64] James R. Slagle. On an algorithm for minimum-cost procedures. *Communications of the ACM*, 7(11):682, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Sla65] James R. Slagle. Experiments with a deductive question-answering program. *Communications of the ACM*, 8(12):792–798, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [SLSS64] Theodor D. Sterling, M. Lichstein, F. Scarpino, and D. Stuebing. Professional computer work for the blind. *Communications of the ACM*, 7(4):228–230, April 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [SM70] Robert R. Smith and Dennis McCall. Algorithm 392: Systems of hyperbolic P.D.E. *Communications of the ACM*, 13(9):567–570, September 1970. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [Fri72].
- [Smi60a] Joseph W. Smith. Syntactic and semantic augments to ALGOL. *Communications of the ACM*, 3(4):211–213, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Smi60b] Howard J. Smith, Jr. A short study of notation efficiency. *Communications of the ACM*, 3(8):468–473, August 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Smi61a] L. Wheaton Smith. What is proprietary in mathematical programming?—impressions of a panel discussion. *Communications of the ACM*, 4(12):542, December 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Smi61b] Oliver K. Smith. Eigenvalues of a symmetric  $3 \times 3$  matrix. *Communications of the ACM*, 4(4):168, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1970:ASH**

**Smith:1960:SSA**

**Smith:1960:SSN**

**Smith:1961:WPM**

**Smith:1961:ESM**

**Stewart:1968:NAN**

**Slagle:1964:AMC**

**Slagle:1965:EDQ**

**Sterling:1964:PCW**



**Smith:1961:BSP**

- [Smi61c] Richard B. Smith. The BKS system for the Philco-2000. *Communications of the ACM*, 4(2):104, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1962:ACDa**

- [Smi62] Robert L. Smith. Algorithm 116: Complex division. *Communications of the ACM*, 5(8):435, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smillie:1963:GPA**

- [Smi63a] K. W. Smillie. A general program for the analysis of square and rectangular lattice designs. *Communications of the ACM*, 6(9):568–572, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1963:CMF**

- [Smi63b] D. D. Smith. Character manipulation in 7090 FORTRAN. *Communications of the ACM*, 6(8):440, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1965:SNS**

- [Smi65a] Barry W. Smith. Symbolic notations for statistical tables and an approach towards automatic system design. *Communications of the ACM*, 8(6):355–360, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1965:SDL**

- [Smi65b] Peter J. Smith. Symbolic derivatives without list processing, subroutines, or recursion. *Communications of the ACM*, 8(8):494–496, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1966:TSS**

- [Smi66a] Joseph W. Smith. Time shared scheduling. *Communications of the ACM*, 9(7):477, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1966:ACC**

- [Smi66b] Lyle B. Smith. Algorithm 277: Computation of Chebyshev series coefficients. *Communications of the ACM*, 9(2):86–87, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1966:CR**

- [Smi66c] Peter J. Smith. On CR Review 8570. *Communications of the ACM*, 9(4):242, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1967:MUP**

- [Smi67a] John L. Smith. Microprogramming under a page on demand strategy. *Communications of the ACM*, 10(10):636–646, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Smith:1967:CBP**

- [Smi67b] Lyle B. Smith. A comparison of batch processing and instant turnaround. *Communications of the ACM*, 10(8):495–500, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1967:RFM**

- [Smi67c] Lyle B. Smith. Re family membership in ACM. *Communications of the ACM*, 10(12):757, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1969:IAD**

- [Smi69a] Lyle B. Smith. Interval arithmetic determinant evaluation and its use in testing for a Chebyshev system. *Communications of the ACM*, 12(2):89–93, February 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1969:RAE**

- [Smi69b] Lyle B. Smith. Remark on Algorithm 178 [E4]: Direct search. *Communications of the ACM*, 12(11):638, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1969:RAC**

- [Smi69c] Oliver K. Smith. Remark on Algorithm 337 [C1]: Calculation of a polynomial and its derivative values by Horner scheme. *Communications of the ACM*, 12(1):39, January 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sakai:1969:STF**

- [SN69] Toshiyuki Sakai and Makoto Nagao. Simulation of traffic flows in a network. *Communications of the ACM*, 12(6):311–318, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Snow:1968:AGR**

- [Sno68] R. H. Snow. Algorithm 342: Generator of random numbers satisfying the Poisson distribution [G5]. *Communications of the ACM*, 11(12):819–820, December 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Solomon:1961:AED**

- [Sol61] Josef G. Solomon. Algorithm 41: Evaluation of determinant. *Communications of the ACM*, 4(4):176, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Solomon:1966:ESI**

- [Sol66] Martin B. Solomon, Jr. Economies of scale and the IBM System/360. *Communications of the ACM*, 9(6):435–440, June 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sonquist:1962:PFW**

- [Son62] John A. Sonquist. Pracniques: Fixed-word-length arrays in variable-word-length computers. *Communications of the ACM*, 5(12):602, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Stark:1962:CPR**

- [SOW62] Lawrence Stark, Mitsuharu Okajima, and Gerald H. Whipple. Computer pattern recognition techniques: electrocardiographic diagnosis. *Communications of the ACM*, 5(10):527–531, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sterling:1966:UCT**

- [SP66] Theodor D. Sterling and Seymour V. Pollack. Use of the computer to teach introductory statistics. *Communications of the ACM*, 9(4):274–275, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Spath:1967:AEC**

- [Spä67a] H. Späth. Algorithm 295: Exponential curve fit. *Communications of the ACM*, 10(2):87, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Spath:1967:ADS**

- [Spä67b] H. Späth. Algorithm 298: Determination of the square root of a positive definite matrix. *Communications of the ACM*, 10(3):182, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Spath:1967:ADT**

- [Spä67c] H. Späth. Algorithm 315: The damped Taylor's series method for minimizing a sum of squares and for solving systems of nonlinear

equations. *Communications of the ACM*, 10(11):726–728, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [Sil69].

**Spath:1967:CAM**

- [Spä67d] H. Späth. Certification of Algorithm 285: The mutual primal-dual method. *Communications of the ACM*, 10(7):453, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Speckhard:1960:CSI**

- [Spe60a] A. E. Speckhard. Character scanning on the IBM 7070. *Communications of the ACM*, 3(11):622, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Speckhard:1960:SLA**

- [Spe60b] A. E. Speckhard. A SAP-like assembly program for the IBM 650. *Communications of the ACM*, 3(1):2–5, January 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sterling:1966:RDS**

- [SPGH66] T. Sterling, S. Pollack, M. Gleser, and S. Haberman. Robot data screening: a solution to multivariate type problems in the biological and social sciences. *Communications of the ACM*, 9(7):529–532, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Stark:1962:ODC**

- [SPO62] L. Stark, R. Payne, and Y. Okabe. Online digital computer measurement of a neurological control system. *Communications of the ACM*, 5(11):567–568, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sprague:1960:AT**

- [Spr60] C. F. Sprague III. Algorithm 17: Trdiag. *Communications of the ACM*, 3(9):508, September 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Squire:1967:NIF**

- [Squ67] William Squire. On “Numerical integration of a function that has a pole”. *Communications of the ACM*, 10(10):610, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schay:1962:AFA**

- [SS62a] G. Schay, Jr. and W. G. Spruth. Analysis of a file addressing method. *Communications of the ACM*, 5(8):459–462, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Early analysis of linear probing.

**Schrack:1962:APL**

- [SS62b] G. F. Schrack and M. Shimrat. Algorithm 102: Permutation in lexicographical order. *Communications of the ACM*, 5(6):346, June

1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Schrack:1962:CAPa**

- [SS62c] G. F. Schrack and M. Shimrat. Certification of Algorithm 87: Permutation generator. *Communications of the ACM*, 5(10):514, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Siegel:1962:IRB**

- [SS62d] Milton Siegel and Albert E. Smith. Interim report on bureau of ships COBOL evaluation program. *Communications of the ACM*, 5(5):256–259, May 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Silvern:1966:CAI**

- [SS66a] Gloria M. Silvern and Leonard C. Silvern. Computer-assisted instruction: specification of attributes for CAI programs and programmers. *Communications of the ACM*, 9(7):476, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Smith:1966:SHA**

- [SS66b] William G. Smith and Martin B. Solomon, Jr. A simulation of hospital admission policy. *Communications of the ACM*, 9(5):362–365, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Schlesinger:1967:PLP**

- [SS67] S. Schlesinger and L. Sashkin. POSE: a language for posing problems to a computer. *Communications of the ACM*, 10(5):279–285, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Salazar:1968:AMA**

- [SS68] Rodolfo C. Salazar and Subrata K. Sen. Algorithm 333: MINIT algorithm for linear programming [H]. *Communications of the ACM*, 11(6):437–440, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remarks [KD71, HOK73, Obr73].

**Shaw:1963:ASS**

- [ST63] C. J. Shaw and T. N. Trimble. Algorithm 175: Shuttle sort. *Communications of the ACM*, 6(6):312–313, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Samet:1964:CAG**

- [ST64] P. A. Samet and P. J. Taylor. Comments on the ALCOR group representation of ALGOL symbols. *Communications of the ACM*, 7(7):424, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Staderman:1962:MTT**

- [Sta62] O. Paul Staderman. On magnetic tape transfer rates. *Communications of the ACM*, 5(4):221, April 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stafford:1965:AAI**

- [Sta65a] J. Stafford. ACM algorithm 264A: Interpolation in a table. *Communications of the ACM*, 8(10):602–604, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stafford:1965:AIT**

- [Sta65b] J. Stafford. Algorithm 264: Interpolation in a table [E1]. *Communications of the ACM*, 8(10):602–604, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stafford:1965:CAS**

- [Sta65c] J. Stafford. Certification of Algorithm 21 [S17]: Bessel function for a set of integer orders. *Communications of the ACM*, 8(4):219, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stanfel:1969:COT**

- [Sta69] Larry E. Stanfel. A comment on optimal tree structures. *Communications of the ACM*, 12(10):582, October 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stolz:1965:SAG**

- [STC65] Walter S. Stolz, Percy H. Tannenbaum, and Frederick V. Carstensen. Stochastic approach to the grammatical coding of English. *Communications of the ACM*, 8(6):399–405, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Steel:1961:SC**

- [Ste61] T. B. Steel, Jr. SHARE committee. *Communications of the ACM*, 4(6):252, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Steck:1962:RAB**

- [Ste62] Richard Steck. Remark on Algorithm 19: Binomial coefficients. *Communications of the ACM*, 5(6):347, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Steel:1964:BTI**

- [Ste64a] T. B. Steel, Jr. Beginnings of a theory of information handling. *Communications of the ACM*, 7(2):97–103, February 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stein:1964:DCM**

- [Ste64b] Marvin L. Stein. Divide-and-correct methods for multiple precision division. *Communications of the ACM*, 7(8):472–474, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stern:1966:RAC**

- [Ste66a] G. Stern. Remark on Algorithm 256: Modified Graeffe method. *Communications of the ACM*, 9(9):687, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stern:1966:RAM**

- [Ste66b] G. Stern. Remark on Algorithm 256: Modified Graeffe method. *Communications of the ACM*, 9(9):687, September 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Steel:1968:CMM**

- [Ste68a] T. B. Steel, Jr. Commentary on Mr. Mooers' paper. *Communications of the ACM*, 11(8):576, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stevens:1968:OSO**

- [Ste68b] David F. Stevens. Operating systems: On overcoming high-priority paralysis in multiprogramming systems: a case history. *Communications of the ACM*, 11(8):539–541, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stiegler:1962:ACF**

- [Sti62] A. D. Stiegler. An algebraic compiler for the FORTRAN assembly program. *Communications of the ACM*, 5(11):545, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stineman:1967:PFT**

- [Sti67] Russell W. Stineman. Plotting a function of three independent variables. *Communications of the ACM*, 10(7):425–428, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Stimler:1968:MCO**

- [Sti68] S. Stimler. A methodology for calculating and optimizing real-time system performance. *Communications of the ACM*, 11(7):509–516, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stimler:1969:SSC**

- [Sti69] Saul Stimler. Standards: Some criteria for time-sharing system performance. *Communications of the ACM*, 12(1):47–53, January 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stockmal:1962:AGPb**

- [Sto62a] Frank Stockmal. Algorithm 114: Generation of partitions with constraints. *Communications of the ACM*, 5(8):434, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stockmal:1962:AGPa**

- [Sto62b] Frank Stockmal. Algorithm 95: Generation of partitions in part-count form. *Communications of the ACM*, 5(6):344, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Storm:1962:PPN**

- [Sto62c] Edward F. Storm. Printer plotting not new. *Communications of the ACM*, 5(12):574, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stockton:1963:AXP**

- [Sto63] Fred G. Stockton. Algorithm 162: XYMOVE plotting. *Communications of the ACM*, 6(4):161, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Stone:1967:OPC**

- [Sto67] Harold S. Stone. One-pass compilation of arithmetic expressions for a parallel processor. *Communications of the ACM*, 10(4):220–223, April 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Storm:1968:CCM**

- [Sto68] Edward F. Storm. CHAMP—character manipulation procedures. *Communications of the ACM*, 11(8):561–566, August 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Strachey:1961:BO**

- [Str61] C. Strachey. Bitwise operations. *Communications of the ACM*, 4(3):146, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Struble:1962:RAM**

- [Str62] George Struble. Remark on Algorithm 58: Matrix inversion. *Communications of the ACM*, 5(8):438, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



- [Str67] **Strome:1967:AUR** W. Murray Strome. Algorithm 294: Uniform random. *Communications of the ACM*, 10(1):40, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [STW67] **Schatzoff:1967:ECT** M. Schatzoff, R. Tsao, and R. Wing. An experimental comparison of time sharing and batch processing. *Communications of the ACM*, 10(5):261–265, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Sul72] **Sullins:1972:CAP** Walter L. Sullins. Certification of “Algorithm 266: Pseudo-random numbers [G5]”. *Communications of the ACM*, 15(12):1072–1073, 1972. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [PH65] and remarks [Han66b, PH66b].
- [Sus63] **Sussenguth:1963:UTS** Edward H. Sussenguth, Jr. Use of tree structures for processing files. *Communications of the ACM*, 6(5):272–279, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Sut68] **Sutherland:1968:FMC** I. E. Sutherland. A futures market in computer time. *Communications of the ACM*, 11(6):449–451, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [SV60] **Sefton:1960:STC** P. Sefton and R. Vaillancourt. A simple technique for coding differential equations. *Communications of the ACM*, 3(11):616–617, November 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [SV61] **Shapiro:1961:GIE** Norman Shapiro and Herman Vreenegoor. The generalized *important event* technique. *Communications of the ACM*, 4(9):394–395, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [SW60] **Smith:1960:SPC** H. J. Smith and F. A. Williams. Survey of punched card codes. *Communications of the ACM*, 3(12):639, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [SW61] **Strachey:1961:SPI** C. Strachey and M. V. Wilkes. Some proposals for improving the efficiency of ALGOL 60. *Communications of the ACM*, 4(11):488–491, November 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [SW63] **Scidmore:1963:SSP** A. K. Scidmore and B. L. Weinberg. Storage and search properties of a tree-organized memory system. *Communications of the ACM*, 6(1):28–31, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Schorr:1967:EMI**

- [SW67] H. Schorr and W. M. Waite. An efficient machine-independent procedure for garbage collection in various list structures. *Communications of the ACM*, 10(8):501–506, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Swarztrauber:1965:LED**

- [Swa65] P. N. Swarztrauber. Letter to the Editor: On the double-precision square root routine. *Communications of the ACM*, 8(4):202, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Swanson:1966:PLD**

- [Swa66] Rowena Swanson. Is the programming language designer losing sight of the user? *Communications of the ACM*, 9(6):412, June 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Swets:1961:SLA**

- [Swe61] John A. Swets. Sound learning: an application of a computer to automated teaching. *Communications of the ACM*, 4(3):139, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Sweet:1969:RRD**

- [Swe69] Roland A. Sweet. A recursive relation for the determinant of a pentadiagonal matrix. *Communications of the ACM*, 12(6):330–332, June 1969. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic).

**Swift:1960:CC**

- [Swi60a] Charles J. Swift. Compiling connectives. *Communications of the ACM*, 3(6):345–346, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Swift:1960:ENE**

- [Swi60b] Charles J. Swift. Evaluating numbers expressed as strings of English words. *Communications of the ACM*, 3(10):541, October 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Synge:1963:ALS**

- [Syn63a] M. J. Synge. Algorithm 177: Least squares solution with constraints. *Communications of the ACM*, 6(6):313, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Synge:1963:RAL**

- [Syn63b] Michael J. Synge. Remark on Algorithm 177: Least squares solution with constraints. *Communications of the ACM*, 6(7):390, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Synge:1964:CTM**

- [Syn64] Michael J. Synge. A case of too much precision. *Communications of the ACM*, 7(12):723, December 1964. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Tajiri:1965:UCS**

- [Taj65] Kazuo Tajiri. The use of COBOL subroutines in FORTRAN main programs. *Communications of the ACM*, 8(4):233, April 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Tang:1963:CCT**

- [Tan63a] I. C. Tang. On the computation of a certain type of incomplete Beta functions. *Communications of the ACM*, 6(11):689, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Tantzen:1963:ACB**

- [Tan63b] Robert G. Tantzen. Algorithm 199: Conversions between calendar date and Julian day number. *Communications of the ACM*, 6(8):444, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Tiernan:1966:DGC**

- [TD66] K. E. Tiernan and R. G. Dietrich. Digital generation of continuous filtered Gaussian noise. *Communications of the ACM*, 9(7):482, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Turnep:1961:LEA**

- [TDTW61] Lloyd D. Turnep, David Dahm, Warren Taylor, and Richard E. Waychoff. Letter to the Editor: ALGOL 60 reply. *Communications*

*of the ACM*, 4(9):365, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Teager:1962:RTT**

- [Tea62] Herbert M. Teager. Real-time, time-shared computer project. *Communications of the ACM*, 5(1):62, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Teichroew:1964:PPT**

- [Tei64] D. Teichroew. Papers presented at the third annual symposium of the San Francisco Bay Area chapter of ACM. *Communications of the ACM*, 7(7):425, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Teijelo:1965:ACF**

- [Tei65] Linda Teijelo. Algorithm 255: Computation of Fourier coefficients. *Communications of the ACM*, 8(5):279, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Tenney:1977:RTO**

- [Ten77] Dennis Tenney. Remark on "Algorithm 219: Topological Ordering for PERT Networks". *ACM Transactions on Mathematical Software*, 3(3):303, September 1977. CODEN ACMSCU. ISSN 0098-3500. See [Kas63].

**Tesler:1967:SGH**

- [Tes67] Lawrence G. Tesler. On "Systematic generation of Hamiltonian circuits". *Communications*



of the *ACM*, 10(4):201–202, April 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Tewarson:1966:CAL**

- [Tew66] R. P. Tewarson. On comparison of the algorithms for linear programming. *Communications of the ACM*, 9(3):136, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1960:ARI**

- [Tha60a] Henry C. Thacher, Jr. Algorithm 15: Rootfinder II (modification of Algorithm 2. Rootfinder). *Communications of the ACM*, 3(8):475, August 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1960:CAR**

- [Tha60b] Henry C. Thacher, Jr. Certification of Algorithm 15: Rootfinder II. *Communications of the ACM*, 3(8):475, August 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1960:RAR**

- [Tha60c] Henry D. Thacher, Jr. Remark on Algorithm 2: Rootfinder. *Communications of the ACM*, 3(8):475, August 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1961:ACP**

- [Tha61a] Henry C. Thacher, Jr. Algorithm 43: Crout with pivoting II. *Communications of the ACM*, 4(4):176–177, April 1961. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1961:CAC**

- [Tha61b] Henry C. Thacher, Jr. Certification of Algorithm 43: CROUT II. *Communications of the ACM*, 4(4):182, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1961:RAC**

- [Tha61c] Henry C. Thacher, Jr. Remark on Algorithm 16: CROUT with pivoting. *Communications of the ACM*, 4(3):154, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1962:CAM**

- [Tha62a] Henry C. Thacher, Jr. Certification of Algorithm 118: Magic square (odd order). *Communications of the ACM*, 5(12):606, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1962:CARb**

- [Tha62b] Henry C. Thacher, Jr. Certification of Algorithm 18: Rational interpolation by continued fractions. *Communications of the ACM*, 5(8):437, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1962:CAT**

- [Tha62c] Henry C. Thacher, Jr. Certification of Algorithm 37: Telescope 1. *Communications of the ACM*, 5(8):438, August 1962. CODEN CACMA2.



ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1962:CAB**

- [Tha62d] Henry C. Thacher, Jr. Certification of Algorithm 57: ber or bei function. *Communications of the ACM*, 5(8):438, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1962:CARa**

- [Tha62e] Henry C. Thacher, Jr. Certification of Algorithm 60: Romberg integration. *Communications of the ACM*, 5(3):168, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1962:CAH**

- [Tha62f] Henry C. Thacher, Jr. Certification of Algorithms 191 and 192, Hypergeometric and Confluent Hypergeometric Functions. *Communications of the ACM*, 7(4):244, April 1962.

**Thacher:1962:RCA**

- [Tha62g] Henry C. Thacher, Jr. A redundancy check for ALGOL programs. *Communications of the ACM*, 5(6):337–342, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1963:ACEa**

- [Tha63a] Henry C. Thacher, Jr. Algorithm 165: Complete elliptic integrals. *Communications of the ACM*, 6(4):163–164, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1963:AEF**

- [Tha63b] Henry C. Thacher, Jr. Algorithm 180: Error function—large  $X$ . *Communications of the ACM*, 6(6):314–315, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1963:AS**

- [Tha63c] Henry C. Thacher, Jr. Algorithm 215: Shanks. *Communications of the ACM*, 6(11):662, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1963:CARa**

- [Tha63d] Henry C. Thacher, Jr. Certification of Algorithm 123: Real error function,  $\text{ERF}(x)$ . *Communications of the ACM*, 6(6):316, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1963:CAS**

- [Tha63e] Henry C. Thacher, Jr. Certification of Algorithm 147 [S14]: PSIF. *Communications of the ACM*, 6(4):168, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Ami62, Par69b].

**Thacher:1963:CACb**

- [Tha63f] Henry C. Thacher, Jr. Certification of Algorithm 149: Complete elliptic integral. *Communications of the ACM*, 6(4):166–167, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Thacher:1963:CAMb**

- [Tha63g] Henry C. Thacher, Jr. Certification of Algorithm 163: Modified Hankel function. *Communications of the ACM*, 6(9):522, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1963:CACc**

- [Tha63h] Henry C. Thacher, Jr. Certification of Algorithm 167: Calculation of confluent divided differences. *Communications of the ACM*, 6(9):523, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1963:CANa**

- [Tha63i] Henry C. Thacher, Jr. Certification of Algorithm 168: Newton interpolation with backward divided differences. *Communications of the ACM*, 6(9):523, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1963:CANb**

- [Tha63j] Henry C. Thacher, Jr. Certification of Algorithm 169: Newton interpolation with forward divided differences. *Communications of the ACM*, 6(9):523, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1963:CARb**

- [Tha63k] Henry C. Thacher, Jr. Certification of Algorithm 193: Reversion of series. *Communications of the ACM*,

6(12):745, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1963:CAMa**

- [Tha63l] Henry C. Thacher, Jr. Certification of Algorithm 32: MULTINT. *Communications of the ACM*, 6(2):69, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1963:CACa**

- [Tha63m] Henry C. Thacher, Jr. Certification of Algorithm 55: Complete elliptic integral of the first kind. *Communications of the ACM*, 6(4):166–167, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1963:CAEb**

- [Tha63n] Henry C. Thacher, Jr. Certification of Algorithm 8: Euler summation. *Communications of the ACM*, 6(11):663, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1963:CAA**

- [Tha63o] Henry C. Thacher, Jr. Certification of Algorithm 96: Ancestor. *Communications of the ACM*, 6(3):104–105, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1963:CAEa**

- [Tha63p] Henry C. Thacher, Jr. Certification of algorithms 134 and 158 exponentiation of series. *Communications of the ACM*, 6(7):390, July 1963. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Thacher:1964:CAS**

- [Tha64a] Henry C. Thacher, Jr. Certification of Algorithm 128: Summation of Fourier series. *Communications of the ACM*, 7(7):421, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1964:CPS**

- [Tha64b] Henry C. Thacher, Jr. Conversion of a power to a series of Chebyshev polynomials. *Communications of the ACM*, 7(3):181–182, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1964:ECF**

- [Tha64c] Henry C. Thacher, Jr. An efficient composite formula for multi-dimensional quadrature. *Communications of the ACM*, 7(1):23–25, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1964:RAR**

- [Tha64d] Henry C. Thacher, Jr. Remark on Algorithm 60: Romberg integration. *Communications of the ACM*, 7(7):420–421, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1966:AS**

- [Tha66a] Henry C. Thacher, Jr. Algorithm 273: Serrev. *Communications of the ACM*, 9(1):11, January 1966. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic).

**Thacher:1966:CAR**

- [Tha66b] Henry C. Thacher, Jr. Certification of Algorithm 9: Runge–Kutta integration. *Communications of the ACM*, 9(4):273, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1966:STE**

- [Tha66c] Henry C. Thacher, Jr. Solution of transcendental equations by series reversion. *Communications of the ACM*, 9(1):10–11, January 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1967:RAE**

- [Tha67a] Henry C. Thacher, Jr. Remarks on Algorithm 180: Error function—large  $X$ . *Communications of the ACM*, 10(6):377, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thacher:1967:RAC**

- [Tha67b] Henry C. Thacher, Jr. Remarks on Algorithm 181: Complementary error function—large  $X$ . *Communications of the ACM*, 10(6):377, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thompson:1963:CVV**

- [Tho63a] Gene T. Thompson. Characteristic values and vectors of defective matrices. *Communications of the ACM*, 6(3):106–107, March 1963. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Thoro:1963:CAT**

- [Tho63b] Dmitri Thoro. Certification of Algorithm 148: Term of magic square. *Communications of the ACM*, 6(4):168, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thoro:1963:CACa**

- [Tho63c] Dmitri Thoro. Certification of Algorithm 160: Combinatorial of  $M$  things taken  $N$  at a time. *Communications of the ACM*, 6(8):450, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thoro:1963:CACb**

- [Tho63d] Dmitri Thoro. Certification of Algorithm 161: Combinatorial of  $M$  things taken one at a time two at a time, up to  $N$  at a time. *Communications of the ACM*, 6(8):450, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Thomas:1966:LEC**

- [Tho66] Richard F. Thomas, Jr. Letter to the Editor: Corrections to numerical data on Q-D algorithm. *Communications of the ACM*, 9(5):322–323, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [HW65, Hen66b].

**Thompson:1968:PTR**

- [Tho68] Ken Thompson. Programming techniques: Regular expression

search algorithm. *Communications of the ACM*, 11(6):419–422, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). URL <http://patft.uspto.gov/>. See also [KP99, Cox07, Cox09, Cox10, Cox12].

**Thurnau:1963:AB**

- [Thu63] Donald H. Thurnau. Algorithm 195: BANDSOLVE. *Communications of the ACM*, 6(8):441, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [Sch72b].

**Titus:1967:AVM**

- [Tit67a] James P. Titus. ARPA: a visible means of support. *Communications of the ACM*, 10(8):519–520, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Titus:1967:CGP**

- [Tit67b] James P. Titus. Changes in government procurement policies. *Communications of the ACM*, 10(7):454–455, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Titus:1967:CII**

- [Tit67c] James P. Titus. Computer inquiries increase in Washington. *Communications of the ACM*, 10(4):246, April 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Titus:1967:CCF**

- [Tit67d] James P. Titus. Computers, communications, and the FCC. *Com-*



*munications of the ACM*, 10(1): 62–67, January 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Titus:1967:CRL**

- [Tit67e] James P. Titus. Copyright revision legislation. *Communications of the ACM*, 10(5):314–315, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Titus:1967:IDH**

- [Tit67f] James P. Titus. An interview with Dr. Herbert R. J. Grosch. *Communications of the ACM*, 10(10):667, October 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Titus:1967:NFM**

- [Tit67g] James P. Titus. The nebulous future of machine translation. *Communications of the ACM*, 10(3): 189–191, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Titus:1967:PNG**

- [Tit67h] James P. Titus. The patchwork nature of government computing support. *Communications of the ACM*, 10(9):589–592, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Titus:1967:PCP**

- [Tit67i] James P. Titus. Pros and cons of patenting computer programs. *Communications of the ACM*, 10

(2):126–127, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Titus:1967:SP**

- [Tit67j] James P. Titus. Security and privacy. *Communications of the ACM*, 10(6):379–381, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Titus:1967:TAL**

- [Tit67k] James P. Titus. Taxes at all levels. *Communications of the ACM*, 10(12):814–815, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Titus:1967:WCS**

- [Tit67l] James P. Titus. Washington commentary: Service bureaus versus banks. *Communications of the ACM*, 10(11):744–745, November 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Tarter:1966:NUK**

- [TK66] Michael E. Tarter and Richard A. Kronmal. Non-uniform key distribution and address calculation sorting. *Communications of the ACM*, 9(7):481, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Tonge:1965:QSL**

- [TKN65] Fred M. Tonge, Peter Keller, and Allen Newell. QUIKSCRIPT — A SIMSCRIPT-like language for the G-20. *Communications of the ACM*, 8(6):350–354, June 1965. CODEN CACMA2. ISSN



0001-0782 (print), 1557-7317 (electronic).

**Teichroew:1966:CSD**

- [TL66a] Daniel Teichroew and John Francis Lubin. Computer simulation—discussion of the technique and comparison of languages. *Communications of the ACM*, 9(10):723–741, October 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Teichrow:1966:CSD**

- [TL66b] Daniel Teichrow and John Francis Lubin. Computer simulation—discussion of the technique and comparison of languages. *Communications of the ACM*, 9(10):723–741, October 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Tobey:1965:BMF**

- [Tob65] George D. Tobey. Bit manipulation in Fortran language. *Communications of the ACM*, 8(6):378, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Tobey:1966:EFA**

- [Tob66a] R. G. Tobey. Experience with FORMAC algorithm design. *Communications of the ACM*, 9(8):589–597, August 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Tobey:1966:EMM**

- [Tob66b] Robert G. Tobey. Eliminating monotonous mathematics with FORMAC. *Communications of*

*the ACM*, 9(10):742–751, October 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Tonge:1961:T**

- [Ton61] F. M. Tonge. Targeteer. *Communications of the ACM*, 4(5):236, May 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Tornheim:1961:ICM**

- [Tor61] Leonard Tornheim. Inversion of a complex matrix. *Communications of the ACM*, 4(9):398, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Traub:1960:CPP**

- [Tra60a] J. F. Traub. Comment on a previous paper [M. J. Aegerter, *Construction of a Set of Test Matrices*, Comm. ACM **2**(8), 10–12 August (1960)]. *Communications of the ACM*, 3(6):352, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Aeg59].

**Traub:1960:CNM**

- [Tra60b] J. F. Traub. Comments on a recent paper [“A New Method of Computation of Square Roots Without Using Division”]. *Communications of the ACM*, 3(2):86, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Sar59].



**Traub:1961:CIM**

- [Tra61a] J. F. Traub. Comparison of iterative methods for the calculation of  $n$  th roots. *Communications of the ACM*, 4(3):143–145, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Traub:1961:CIF**

- [Tra61b] J. F. Traub. On a class of iteration formulas and some historical notes. *Communications of the ACM*, 4(6):276–278, June 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Traub:1962:IC**

- [Tra62a] J. F. Traub. IFIP-62: Comments. *Communications of the ACM*, 5(10):500–501, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Travis:1962:DAI**

- [Tra62b] Larry E. Travis. In defense of artificial intelligence research. *Communications of the ACM*, 5(1):6–7, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Traub:1963:UPI**

- [Tra63] J. F. Traub. USA participation in an international standard glossary on information processing. *Communications of the ACM*, 6(11):658–659, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Traub:1964:NPW**

- [Tra64] J. F. Traub. The new program of work for the international standard vocabulary in computers and information processing. *Communications of the ACM*, 7(11):662, November 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Traub:1965:ASI**

- [Tra65] J. F. Traub. American Standard and IFIP /ICC vocabularies compared. *Communications of the ACM*, 8(6):361–362, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Tracht:1982:RNR**

- [Tra82] Allen E. Tracht. Remark on “Algorithm 334: Normal Random Deviates”. *ACM Transactions on Mathematical Software*, 8(1):89, March 1982. CODEN ACMSCU. ISSN 0098-3500. See [Bel68].

**Trotter:1962:AP**

- [Tro62] H. F. Trotter. Algorithm 115: Perm. *Communications of the ACM*, 5(8):434–435, August 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Truitt:1967:TCC**

- [Tru67] T. D. Truitt. Thoughts on continuous change simulation languages. *Communications of the ACM*, 10(8):463, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Thacher:1963:ACEb**

- [TS63] Henry C. Thacher, Jr. and Paul Shaman. Algorithm 181: Complementary error function—large  $X$ . *Communications of the ACM*, 6(6):315, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**TadeudeMedeiros:1969:APF**

- [TS69a] Adilson Tadeu de Medeiros and Georges Schwachheim. Algorithm 349: Polygamma functions with arbitrary precision [S14]. *Communications of the ACM*, 12(4):213–214, April 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See certification [Lew75].

**Tomlin:1969:RAE**

- [TS69b] F. K. Tomlin and L. B. Smith. Remark on Algorithm 178 [E4]: Direct search. *Communications of the ACM*, 12(11):637–638, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Taylor:1961:SCA**

- [TTW61] Warren Taylor, Lloyd Turner, and Richard Waychoff. A syntactical chart of ALGOL 60. *Communications of the ACM*, 4(9):393, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Tucker:1965:ELS**

- [Tuc65] S. G. Tucker. Emulation of large systems. *Communications of the ACM*, 8(12):753–761, December

1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Originally appeared in ACM Reprogramming Conference, Princeton, Jun 1965.

**Turner:1966:CB**

- [Tur66] L. Richard Turner. On the confusion between “0” and “O”. *Communications of the ACM*, 9(1):35, January 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Taulbee:1966:NCT**

- [TW66] Orrin E. Taulbee and John T. Welch, Jr. A new classification theory leading to automatic pattern recognition. *Communications of the ACM*, 9(7):476, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Uhr:1966:GIF**

- [Uhr66] Leonard Uhr. Is the groping IR field ready for a costly crash program? *Communications of the ACM*, 9(4):241–242, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Ulrich:1969:ESA**

- [Ulr69] Ernst G. Ulrich. Exclusive simulation of activity in digital networks. *Communications of the ACM*, 12(2):102–110, February 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Unger:1964:GHP**

- [Ung64] Stephen H. Unger. GIT—a heuristic program for testing pairs of directed line graphs for isomorphism.



*Communications of the ACM*, 7 (1):26–34, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Unger:1968:GPC**

- [Ung68] Stephen H. Unger. A global parser for context-free phrase structure grammars. *Communications of the ACM*, 11(4):240–247, April 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Utman:1963:SAR**

- [Utm63] R. E. Utman. Suggestions on ALGOL 60 (ROME) issues. *Communications of the ACM*, 6(1):20–23, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Vandergraft:1961:CAS**

- [Van61] James S. Vandergraft. Certification of Algorithm 3: Solution of polynomial equations by Bairstow Hitchcock method. *Communications of the ACM*, 4(2):105, February 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**vandeRiet:1963:ACA**

- [van63a] R. P. van de Riet. Algorithm 186: Complex arithmetic. *Communications of the ACM*, 6(7):386–387, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**vandeRiet:1963:ADD**

- [van63b] R. P. van de Riet. Algorithm 187: Differences and derivatives. *Com-*

*munications of the ACM*, 6(7):387, July 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**VanHorn:1968:TCD**

- [Van68a] Earl C. Van Horn. Three criteria for designing computing systems to facilitate debugging. *Communications of the ACM*, 11(5):360–365, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**vanReeken:1968:LED**

- [van68b] A. J. van Reeken. Letter to the Editor: Dealing with Neely's algorithms. *Communications of the ACM*, 11(3):149–150, March 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Nee66].

**VanTassel:1969:ACT**

- [Van69] Dennie Van Tassel. Advanced cryptographic techniques for computers. *Communications of the ACM*, 12 (12):664–665, December 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Varah:1965:CAE**

- [Var65] J. M. Varah. Certification of Algorithm 203 [E4]: STEEP1. *Communications of the ACM*, 8(3):171, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Vasilakos:1962:DMB**

- [Vas62] G. J. Vasilakos. A decision matrix as the basis for a simple data input routine. *Communications of*



*the ACM*, 5(12):599–601, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Vazsonyi:1961:LMS**

- [Vaz61] Andrew Vazsonyi. An on-line management system using English language. *Communications of the ACM*, 4(9):405, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**vandeRiet:1963:CAI**

- [vdR63] R. P. van de Riet. Certification of Algorithm 73: Incomplete elliptic integrals. *Communications of the ACM*, 6(4):167, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Veinott:1966:MPD**

- [Vei66a] C. G. Veinott. More on programming decision tables. *Communications of the ACM*, 9(7):485, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Veinott:1966:PDT**

- [Vei66b] Cyril G. Veinott. Programming decision tables in FORTRAN, COBOL or ALGOL. *Communications of the ACM*, 9(1):31–35, January 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Veronis:1965:NUD**

- [Ver65] George Veronis. A note on the use of a digital computer for doing tedious algebra and programming.

*Communications of the ACM*, 8(10):625–626, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Verhoef:1966:DML**

- [Ver66] E. W. Verhoef. Design of a multi-level file management system. *Communications of the ACM*, 9(7):476, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Verhoeff:1961:IUB**

- [VGB61] J. Verhoeff, W. Goffman, and Jack Belzer. Inefficiency of the use of Boolean functions for information retrieval systems. *Communications of the ACM*, 4(12):557–558, 594, December 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Vandergraft:1969:RAC**

- [VM69] James Vandergraft and Charles Mesztenyi. Remark on Algorithm 314 [C5]: Finding a solution of  $N$  functional equations in  $N$  unknowns. *Communications of the ACM*, 12(1):38–39, January 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**vonSydow:1967:CTA**

- [von67] L. von Sydow. Computer typesetting of ALGOL. *Communications of the ACM*, 10(3):172–174, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



- [Voo60] Edward A. Voorhees. Some thoughts on reconciling various character set proposals. *Communications of the ACM*, 3(7):408–409, July 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Vos64] J. R. Voss. In defense of ALGOL 60 as a publication language. *Communications of the ACM*, 7(1):2, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Vos73] H. Vos. Remark on “Algorithm 300: Coulomb wave functions”. *Communications of the ACM*, 16(5):308–309, May 1973. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Gun67].
- [vS64] R. L. ver Steeg. Talk—a high-level source language debugging technique with real-time data extraction: 26. *Communications of the ACM*, 7(7):418–419, July 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Wag60] Francis V. Wagner. Letter to the Editor: Programming and operating systems for SHARE machines (IBM 704, IBM 709, IBM 7090). *Communications of the ACM*, 3(12):A9, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Wai67a] William M. Waite. An efficient procedure for the generation of closed subsets. *Communications of the ACM*, 10(3):169–171, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Wai67b] William M. Waite. A language independent macro processor. *Communications of the ACM*, 10(7):433–440, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Wak63] David J. Waks. Conversion, reversion and comparison techniques in variable-length sorting. *Communications of the ACM*, 6(5):267–272, May 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Wal62] Philip J. Walsh. Algorithm 127: Ortho. *Communications of the ACM*, 5(10):511–513, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Wal63] Henry F. Walter. Algorithm 151: Location of a vector in a lexicographically ordered list. *Communications of the ACM*, 6(2):68, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



- 0001-0782 (print), 1557-7317 (electronic).
- [Wal64] Philip Wallack. Certification of Algorithm 203: Steep1. *Communications of the ACM*, 7(10):585, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Wal66] John J. Walton. Tensor calculations on the computer. *Communications of the ACM*, 9(12):864, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Wal67] John J. Walton. Tensor calculations on computer: appendix. *Communications of the ACM*, 10(3):183–186, March 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Wan60] Hao Wang. Proving theorems by pattern recognition I. *Communications of the ACM*, 3(4):220–234, April 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Wan62] T. L. Wang. An information system with the ability to extract intelligence from data. *Communications of the ACM*, 5(1):16–18, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [War60] Willis H. Ware. Soviet computer technology — 1959. *Communications of the ACM*, 3(3):131–166, March 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [War65] Peter Warburton. Letter to the Editor: suggestions for ACM's long-term growth. *Communications of the ACM*, 8(1):71, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Was63a] E. J. Wasscher. Algorithm 203: STEEP1. *Communications of the ACM*, 6(9):517–519, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Was63b] E. J. Wasscher. Algorithm 204: STEEP2. *Communications of the ACM*, 6(9):519, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).
- [Was63c] E. J. Wasscher. Remark on Algorithm 129 MINIFUN: MINIFUN. *Communications of the ACM*, 6(9):521, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Whi62a].



**Wasscher:1965:RAE**

- [Was65] E. J. Wasscher. Remark on Algorithm 205 [E4]: ATIVE. *Communications of the ACM*, 8(3):171, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Waters:1966:MNI**

- [Wat66] John Waters. Methods of numerical integration applied to a system having trivial function evaluations. *Communications of the ACM*, 9(4):293–296, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Watts:1967:MRG**

- [Wat67] G. E. Watts. In memory of Richard Goodman. *Communications of the ACM*, 10(12):757, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Watson:1969:CAE**

- [Wat69] Wayne T. Watson. Certification of Algorithm 296 [E2]: Generalized least squares fit by orthogonal polynomials. *Communications of the ACM*, 12(11):636–637, November 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wall:1963:PMP**

- [WB63] Elizabeth Wall and Richard M. Brown. A penny-matching program. *Communications of the ACM*, 6(6):307–308, June 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wactlar:1964:MTA**

- [WB64] H. D. Wactlar and M. P. Barnett. Mechanization of tedious algebra—the e coefficients of theoretical chemistry. *Communications of the ACM*, 7(12):704–710, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weldon:1965:ABN**

- [WB65] Roger J. Weldon and Robert L. Baker. Applications of binary numbers in computer routines. *Communications of the ACM*, 8(5):315–318, May 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Whipple:1965:ROR**

- [WDHS65] Gerald H. Whipple, James F. Dickson, Hiroshi Horibe, and Lawrence Stark. Remote, online, real-time computer diagnosis of the clinical electrocardiogram. *Communications of the ACM*, 8(1):49–52, January 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weber:1967:MIE**

- [Web67] Helmut Weber. A microprogrammed implementation of EULER on IBM System/360 model 30. *Communications of the ACM*, 10(9):549–558, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wegner:1960:TCO**

- [Weg60a] Peter Wegner. A technique for counting ones in a binary computer.



*Communications of the ACM*, 3(5): 322, May 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wegstein:1960:AR**

- [Weg60b] J. Wegstein. Algorithm 2: Rootfinder. *Communications of the ACM*, 3(2):74, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wegstein:1960:AA**

- [Weg60c] J. H. Wegstein. Algorithms: Announcement. *Communications of the ACM*, 3(2):73, February 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wegner:1962:CBI**

- [Weg62a] Peter Wegner. Communications between independently translated blocks. *Communications of the ACM*, 5(7):376–381, July 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wegner:1962:PAT**

- [Weg62b] Peter Wegner. Priority assignment in a time-shared computer installation. *Communications of the ACM*, 5(2):95, February 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weinberg:1961:LEA**

- [Wei61a] G. M. Weinberg. Letter to the Editor: ALGOL: pleasure through pain. *Communications of the ACM*, 4(6):252, June 1961. CODEN

CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weinberg:1961:PEC**

- [Wei61b] G. M. Weinberg. Programmed error correction on a decimal computer. *Communications of the ACM*, 4(4):174–175, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weil:1962:HPT**

- [Wei62a] John W. Weil. A heuristic for page turning in a multiprogrammed computer. *Communications of the ACM*, 5(9):480–481, September 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weisert:1962:TSI**

- [Wei62b] Conrad Weisert. Tape splitting in an iterative program. *Communications of the ACM*, 5(2):102, February 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weizenbaum:1962:KLS**

- [Wei62c] J. Weizenbaum. Knotted list structures. *Communications of the ACM*, 5(3):161–165, March 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weimer:1963:STD**

- [Wei63a] Don L. Weimer. A serial technique to determine minimum paths. *Communications of the ACM*, 6(11):664–666, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Weizenbaum:1963:PLS**

- [Wei63b] J. Weizenbaum. Programming languages: Symmetric list processor. *Communications of the ACM*, 6(9):524–536, A1–A15, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weinberg:1964:SCP**

- [Wei64a] G. M. Weinberg. Solutions of combinatorial problems using generating functions on a variable-field computer. *Communications of the ACM*, 7(9):530–534, September 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weisert:1964:C**

- [Wei64b] Conrad H. Weisert. A comment. *Communications of the ACM*, 7(5):314, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weizenbaum:1964:MRC**

- [Wei64c] J. Weizenbaum. More on the reference counter method of erasing list structures. *Communications of the ACM*, 7(1):38, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weil:1965:TUD**

- [Wei65a] Roman L. Weil, Jr. Testing the understanding of the difference between call by name and call by value in ALGOL 60. *Communications of the ACM*, 8(6):378, June 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weingarten:1965:SCL**

- [Wei65b] Fred W. Weingarten. Simulation of computer logic by Fortran arithmetic. *Communications of the ACM*, 8(8):516–517, August 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weingarten:1966:ART**

- [Wei66a] Allen Weingarten. Analyzing a real time system. *Communications of the ACM*, 9(7):478, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weingarten:1966:EDS**

- [Wei66b] Allen Weingarten. The Eschenbach drum scheme. *Communications of the ACM*, 9(7):509–512, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weizenbaum:1966:ECP**

- [Wei66c] Joseph Weizenbaum. ELIZA — A computer program for the study of natural language communication between man and machine. *Communications of the ACM*, 9(1):36–45, January 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weinert:1967:SFC**

- [Wei67a] Arla E. Weinert. A SIMSCRIPT-FORTRAN case study. *Communications of the ACM*, 10(12):784–792, December 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Weizenbaum:1967:CUC**

- [Wei67b] Joseph Weizenbaum. Contextual understanding by computers. *Communications of the ACM*, 10(8):474–480, August 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weiss:1969:LER**

- [Wei69a] Eric A. Weiss. Letter to the Editor: response to Galler, Pinkerton, Arden letter. *Communications of the ACM*, 12(6):302, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weizenbaum:1969:RRL**

- [Wei69b] Joseph Weizenbaum. Recovery of reentrant list structures in SLIP. *Communications of the ACM*, 12(7):370–372, July 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wells:1961:MSC**

- [Wel61] Mark B. Wells. MADCAP: a scientific compiler for a displayed formula textbook language. *Communications of the ACM*, 4(1):31–36, January 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wells:1962:ASF**

- [Wel62a] M. Wells. Algorithm 128: Summation of Fourier series. *Communications of the ACM*, 5(10):513, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wells:1962:AEG**

- [Wel62b] M. Wells. Algorithm 136: Enlargement of a group. *Communications of the ACM*, 5(11):555, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wells:1963:AMD**

- [Wel63a] M. Wells. Algorithm 197: Matrix division. *Communications of the ACM*, 6(8):443, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wells:1963:LEA**

- [Wel63b] Mark B. Wells. Letter to the Editor: on ALGOL 60 as a publication language. *Communications of the ACM*, 6(8):421, August 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wells:1963:RIM**

- [Wel63c] Mark B. Wells. Recent improvements in MADCAP. *Communications of the ACM*, 6(11):674–678, November 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Weldon:1964:MCA**

- [Wel64a] Roger J. Weldon. Machine controls for analysis of variance. *Communications of the ACM*, 7(8):490–494, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wells:1964:CAM**

- [Wel64b] M. Wells. Certification of Algorithm 197: Matrix division. *Com-*



*munications of the ACM*, 7(3):148, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wells:1965:AFM**

- [Wel65] M. Wells. Algorithm 251: Function minimisation [E4]. *Communications of the ACM*, 8(3):169–170, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Welsch:1966:AAWa**

- [Wel66a] John H. Welsch. Algorithm 280: Abscissas and weights for Gregory quadrature. *Communications of the ACM*, 9(4):271, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Welsch:1966:AAWb**

- [Wel66b] John H. Welsch. Algorithm 281: Abscissas and weights for Romberg quadrature. *Communications of the ACM*, 9(4):271–272, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Welsch:1967:CAEa**

- [Wel67a] John H. Welsch. Certification of Algorithm 253: Eigenvalues of a real symmetric matrix by the QR method. *Communications of the ACM*, 10(6):376, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Welsch:1967:CAEb**

- [Wel67b] John H. Welsch. Certification of Algorithm 254: Eigenvalues and eigenvectors of a real symmetric

matrix by the QR method. *Communications of the ACM*, 10(6):376–377, June 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wengert:1964:SAD**

- [Wen64] R. E. Wengert. A simple automatic derivative evaluation program. *Communications of the ACM*, 7(8):463–464, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See comments [BKK65a, Wil64c].

**Westin:1967:SRL**

- [Wes67] Alan F. Westin. Special report: legal safeguards to insure privacy in a computer society. *Communications of the ACM*, 10(9):533–537, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wangsness:1966:AF**

- [WF66] T. Wangsness and J. Franklin. “algorithm” and “formula”. *Communications of the ACM*, 9(4):243, April 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See letter [Hub66].

**Weinberg:1963:EAV**

- [WG63] G. M. Weinberg and G. L. Gressett. An experiment in automatic verification of programs. *Communications of the ACM*, 6(10):610–613, October 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Woodger:1966:SS**

- [WG66] M. Woodger and J. Green. Summary session. *Communications of the ACM*, 9(3):220–224, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wenrick:1961:STM**

- [WH61] R. C. Wenrick and A. V. Houghton. Solution of tridiagonal matrices. *Communications of the ACM*, 4(7):314, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wirth:1966:CDA**

- [WH66a] Niklaus Wirth and C. A. R. Hoare. A contribution to the development of ALGOL. *Communications of the ACM*, 9(6):413–432, June 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See errata [WH66b].

**Wirth:1966:ECD**

- [WH66b] Niklaus Wirth and C. A. R. Hoare. Errata: “A Contribution to the Development of ALGOL”. *Communications of the ACM*, 9(12):878, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [WH66a].

**Wheeling:1960:OTS**

- [Whe60] R. F. Wheeling. Optimizers: their structure. *Communications of the ACM*, 3(12):632–638, December 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wheeling:1962:NPI**

- [Whe62] R. Wheeling. New products: IBM 1440 data processing system features five new units. *Communications of the ACM*, 5(12):618–620, December 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Whitley:1962:AM**

- [Whi62a] V. W. Whitley. Algorithm 129: MINIFUN. *Communications of the ACM*, 5(11):550–551, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [Was63c].

**Whittier:1962:CAA**

- [Whi62b] Victor E. Whittier. Certification of Algorithm 77: Avint. *Communications of the ACM*, 5(6):348, June 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Whitley:1963:EIR**

- [Whi63] V. W. Whitley. Everyman’s information retrieval system. *Communications of the ACM*, 6(3):123–126, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**White:1964:REC**

- [Whi64a] Peter White. Relative effects of central processor and input-output speeds upon throughput on the large computer. *Communications of the ACM*, 7(12):711–714, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Whittaker:1964:LEM**

- [Whi64b] Richard D. Whittaker. Letter to the Editor: More on reducing truncation errors. *Communications of the ACM*, 7(12):736, December 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Whittlesey:1964:RMD**

- [Whi64c] John R. B. Whittlesey. A rapid method for digital filtering. *Communications of the ACM*, 7(9):552–556, September 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Whitley:1968:CAM**

- [Whi68a] Virginia W. Whitley. Certification of Algorithm 196 [C5]: Muller's method for finding roots of an arbitrary function. *Communications of the ACM*, 11(1):12–14, January 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Whittlesey:1968:CCB**

- [Whi68b] John R. B. Whittlesey. A comparison of the correlational behavior of random number generators for the IBM 360. *Communications of the ACM*, 11(9):641–644, September 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See implementation [Fel69].

**Whittlesey:1969:LEM**

- [Whi69] John R. B. Whittlesey. Letter to the Editor: On the multidimensional uniformity of pseudorandom generators. *Communications of the*

*ACM*, 12(5):247, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Mar68a].

**Wilkinson:1961:RA**

- [Wil61a] J. H. Wilkinson. Remarks on Algorithms 2 and 3. *Communications of the ACM*, 4(3):153, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wilson:1961:NGW**

- [Wil61b] J. G. Wilson. Notes on geometric weighted check digit verification. *Communications of the ACM*, 4(12):551–552, December 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Williams:1962:CCE**

- [Wil62] M. R. Williams. Certification of the calculation of Easter.... *Communications of the ACM*, 5(11):556, November 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Knu62a].

**Wilcox:1964:DDP**

- [Wil64a] H. James Wilcox. Digital data processor for tracking the partially illuminated moon. *Communications of the ACM*, 7(3):183–188, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wilkes:1964:CTS**

- [Wil64b] M. V. Wilkes. Constraint-type statements in programming languages. *Communications of the*



*ACM*, 7(10):587–588, October 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wilkins:1964:INA**

- [Wil64c] R. D. Wilkins. Investigation of a new analytical method for numerical derivative evaluation. *Communications of the ACM*, 7(8):465–471, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Williams:1964:AH**

- [Wil64d] J. W. J. Williams. Algorithm 232: Heapsort. *Communications of the ACM*, 7(6):347–348, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wilkins:1966:GTV**

- [Wil66a] R. D. Wilkins. General time-varying systems error sensitivities program. *Communications of the ACM*, 9(12):855–859, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Williams:1966:DRT**

- [Wil66b] John Michael Williams. Design of the real-time executive for the Univac 418 system. *Communications of the ACM*, 9(7):482, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Williams:1966:RAE**

- [Wil66c] R. Williams. Remark on Algorithm 286: Examination scheduling. *Communications of the ACM*,

9(11):795, November 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Williamson:1972: AHL**

- [Wil72] Hugh Williamson. Algorithm 420: Hidden-line plotting program [J6]. *Communications of the ACM*, 15(2):100–103, February 1972. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remarks [MC73, Wil73, Ell74a, Gai74, Ell74b].

**Williamson:1973:RAH**

- [Wil73] Hugh Williamson. Remark on “Algorithm 420: Hidden-line plotting program”. *Communications of the ACM*, 16(9):578–579, September 1973. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Wil72, MC73, Ell74a, Ell74b, Gai74].

**Wing:1967:ACN**

- [Win67] James Wing. Abacus computation in number systems of bases other than ten. *Communications of the ACM*, 10(2):86, February 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wirth:1963:GA**

- [Wir63] Niklaus Wirth. A generalization of ALGOL. *Communications of the ACM*, 6(9):547–554, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Wirth:1964:CAM**

- [Wir64] Niklaus Wirth. Certification of Algorithm 146: Multiple integration. *Communications of the ACM*, 7(5):296, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wirth:1965:AFP**

- [Wir65a] Niklaus Wirth. Algorithm 265: Find precedence functions [L2]. *Communications of the ACM*, 8(10):604–605, October 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wirth:1965:AO**

- [Wir65b] Niklaus E. Wirth. Algorithm 249: Outreal  $N$  [15]. *Communications of the ACM*, 8(2):104, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wirth:1966:LEN**

- [Wir66] Niklaus Wirth. Letter to the Editor: A note on “Program structures for parallel processing”. *Communications of the ACM*, 9(5):320–321, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wirth:1969:MMC**

- [Wir69] Niklaus Wirth. On multiprogramming, machine coding, and computer organization. *Communications of the ACM*, 12(9):489–498, September 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See corrigendum [Wir70].

**Wirth:1970:CMM**

- [Wir70] N. Wirth. Corrigenda: “On Multiprogramming, Machine Coding, and Computer Organization”. *Communications of the ACM*, 13(4):266, April 1970. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Wir69].

**Wishner:1968:LEC**

- [Wis68] Raymond P. Wishner. Letter to the Editor: Comment on Curriculum 68. *Communications of the ACM*, 11(10):658, October 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Witty:1963:CAA**

- [Wit63] Robert D. Witty. Certification of Algorithm 27: Assignment. *Communications of the ACM*, 6(12):739, December 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Witte:1968:AJP**

- [Wit68] Bruno F. W. Witte. Algorithm 332: Jacobi polynomials [S22]. *Communications of the ACM*, 11(6):436–437, June 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See remark [Sko75b].

**Weller:1965:RBT**

- [WK65] Walter J. Weller and Virginia C. Klema. A rapid Braille transliteration technique for certain IBM machine. *Communications of the ACM*, 8(2):115–116, February 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Wilson:1965:CCA**

- [WM65] Donald M. Wilson and David J. Moss. CAT: a 7090–3600 computer-aided translation. *Communications of the ACM*, 8(12):777–781, December 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Winner:1966:TOF**

- [WM66] D. R. Winner and L. L. Marsh. A technique for optimizing a function of many variables: determining the minimum energy configuration of a crystal lattice. *Communications of the ACM*, 9(7):480, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wallace:1969:DMP**

- [WM69] V. L. Wallace and D. L. Mason. Degree of multiprogramming in page-on-demand systems. *Communications of the ACM*, 12(6):305–308, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Warrington:1964:ESI**

- [WN64] James A. Warrington and James H. Norris. Expand, a system for input card replication. *Communications of the ACM*, 7(5):309, May 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wojcicki:1961:ABF**

- [Woj61] Maria E. Wojcicki. Algorithm 44: Bessel functions computed recursively. *Communications of the ACM*, 4(4):177–178, April

1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wolfe:1964:RTE**

- [Wol64] Jack M. Wolfe. Reducing truncation errors by programming. *Communications of the ACM*, 7(6):355–356, June 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wolinsky:1968:SPL**

- [Wol68] A. Wolinsky. A simple proof of Lewin's ordered-retrieval theorem for associative memories. *Communications of the ACM*, 11(7):488–490, July 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wong:1961:CSM**

- [Won61] Eugene Wong. A class of search-models for machine retrieval. *Communications of the ACM*, 4(7):324, July 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wood:1961:AS**

- [Woo61a] T. C. Wood. Algorithm 35: SIEVE. *Communications of the ACM*, 4(3):151, March 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wood:1961:AI**

- [Woo61b] T. C. Wood. Algorithm 42: Invert. *Communications of the ACM*, 4(4):176, April 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Woodger:1963:SAR**

- [Woo63] M. Woodger. Supplement to the ALGOL 60 report. *Communications of the ACM*, 6(1):18–20, January 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wooster:1968:LED**

- [Woo68] Harold Wooster. Letter to the Editor: Do you use microfiche? *Communications of the ACM*, 11(10):657–658, October 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wood:1969:LEF**

- [Woo69] Derick Wood. Letter to the Editor: A few more trouble spots in ALGOL 60. *Communications of the ACM*, 12(5):247–248, May 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [Knu67].

**Worsley:1964:ADT**

- [Wor64] Beatrice H. Worsley. Analysis of decay-type data. *Communications of the ACM*, 7(1):39–44, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Williams:1960:LE**

- [WRI<sup>+</sup>60] F. A. Williams, H. G. Rice, H. Isbitz, Ruth Anderson, E. Book, H. Bratman, W. Dobrusky, D. Englund, H. Manelowitz, Sonya Shapiro, and E. F. Codd. Letters to the Editor. *Communications of the ACM*, 3(9):L12–L13, 506, September 1960. CODEN CACMA2. ISSN

0001-0782 (print), 1557-7317 (electronic).

**Wright:1963:CAI**

- [Wri63] Carl B. Wright. Certification of Algorithm 45: Interest. *Communications of the ACM*, 6(9):520–521, September 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wright:1966:CFL**

- [Wri66] Donald L. Wright. A comparison of the FORTRAN language implementation for several computers. *Communications of the ACM*, 9(2):77–79, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wright:1967:LEB**

- [Wri67] K. Wright. Letter to the Editor: on Bellman's method for unstable linear systems. *Communications of the ACM*, 10(7):396, July 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Waite:1964:NFF**

- [WS64] William M. Waite and H. Schorr. A note on the formation of free list. *Communications of the ACM*, 7(8):478, August 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**White:1963:LPA**

- [WSP63] William C. White, Marvin B. Shapiro, and Arnold W. Pratt. Linear programming applied to ultraviolet absorption spectroscopy. *Communications of the ACM*, 6(2):



66–67, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wegstein:1960:CR**

- [WT60] J. Wegstein and Henry C. Thacher, Jr. Certification: rootfinder. *Communications of the ACM*, 3(6):354, June 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Watt:1962:NGC**

- [WW62] J. B. Watt and W. H. Wattenburg. A NELIAC-generated 7090–1401 compiler. *Communications of the ACM*, 5(2):101–102, February 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wolfson:1963:ACT**

- [WW63a] M. L. Wolfson and H. V. Wright. Algorithm 160: Combinatorial of  $M$  things taken  $N$  at a time. *Communications of the ACM*, 6(4):161, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wright:1963:ACT**

- [WW63b] H. V. Wright and M. L. Wolfson. Algorithm 161: Combinatorial of  $M$  things taken one at a time, two at a time, up to  $N$  at a time. *Communications of the ACM*, 6(4):161, April 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wirth:1966:EEG**

- [WW66a] Niklaus Wirth and Helmut Weber. Errata: “EULER: a generalization

of ALGOL and its formal definition: Part 1”. *Communications of the ACM*, 9(12):878, December 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See [WW66b].

**Wirth:1966:EGAA**

- [WW66b] Niklaus Wirth and Helmut Weber. EULER: a generalization of ALGOL and its formal definition: Part 1. *Communications of the ACM*, 9(1):13–25, January 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). See errata [WW66a].

**Wirth:1966:EGAb**

- [WW66c] Niklaus Wirth and Helmut Weber. EULER: a generalization of ALGOL, and its formal definition: Part II. *Communications of the ACM*, 9(2):89–99, February 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Walter:1967:FAC**

- [WW67] Edward S. Walter and Victor L. Wallace. Further analysis of a computing center environment. *Communications of the ACM*, 10(5):266–272, May 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wegstein:1962:SLS**

- [WY62] J. H. Wegstein and W. W. Youden. A string language for symbol manipulation based on ALGOL 60. *Communications of the ACM*, 5(1):54–61, January 1962. CODEN



CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Wyllys:1961:LER**

- [Wyl61] R. E. Wyllys. Letter to the Editor: research reports published. *Communications of the ACM*, 4(9):379, September 1961. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Yarbrough:1960:STP**

- [Yar60] Lynn D. Yarbrough. Some thoughts on parallel processing. *Communications of the ACM*, 3(10):539, October 1960. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Yarbrough:1962:IDO**

- [Yar62] Lynn D. Yarbrough. Input data organization in FORTRAN. *Communications of the ACM*, 5(10):508–509, October 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Yarbrough:1963:DBC**

- [Yar63] L. D. Yarbrough. Decimal-to-binary conversion of short fields. *Communications of the ACM*, 6(2):63–64, February 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Yarbrough:1967:PCC**

- [Yar67] Lynn Yarbrough. Precision calculations of  $e$  and  $\pi$  constants. *Communications of the ACM*, 10(9):537, September 1967. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Yarbrough:1968:LEU**

- [Yar68] Lynn D. Yarbrough. Letter to the Editor: on using a graphic input tablet. *Communications of the ACM*, 11(5):294, May 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Yershov:1966:AAP**

- [Yer66] A. P. Yershov. ALPHA — an automatic programming system of high efficiency. *Communications of the ACM*, 9(1):17–24, January 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Yarnall:1966:CAM**

- [YK66] Stephen R. Yarnall and Richard A. Kronmal. Computer aides to medical diagnosis—problems and progress. *Communications of the ACM*, 9(7):480, July 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Yngve:1962:CIL**

- [Yng62] Victor H. Yngve. COMIT as an IR language. *Communications of the ACM*, 5(1):19–28, January 1962. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Yngve:1963:C**

- [Yng63] Victor H. Yngve. COMIT. *Communications of the ACM*, 6(3):83–84, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).



**Yoash:1965:LET**

- [Yoa65a] Nahal Ben Yoash. Letter to the Editor: a two-tape-unit sort. *Communications of the ACM*, 8(11):649, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Yoash:1965:TTU**

- [Yoa65b] Nahal Ben Yoash. A two-tape-unit sort. *Communications of the ACM*, 8(11):649, November 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Letter to the editor.

**Yngve:1963:TBD**

- [YS63] Victor H. Yngve and Jean E. Sammet. Toward better documentation of programming languages: introduction. *Communications of the ACM*, 6(3):76, March 1963. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Yarbrough:1964:S**

- [YW64] L. D. Yarbrough and J. Weizenbaum. SLIP. *Communications of the ACM*, 7(1):2, January 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Zajac:1964:CMP**

- [Zaj64] E. E. Zajac. Computer-made perspective movies as a scientific and communication tool. *Communications of the ACM*, 7(3):169–170, March 1964. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Zakin:1966:NYC**

- [Zak66] Noel Zakin. New York City's top officials envision information system for total organization at ACM symposium. *Communications of the ACM*, 9(5):392, May 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Zaremba:1965:AC**

- [Zar65] W. A. Zaremba. On ALGOL I/O conventions. *Communications of the ACM*, 8(3):167–169, March 1965. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Zemanek:1966:SPL**

- [Zem66] H. Zemanek. Semiotics and programming languages. *Communications of the ACM*, 9(3):139–143, March 1966. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Zemanek:1969:LES**

- [Zem69] H. Zemanek. Letter to the Editor: on selecting the sites for IFIP congresses. *Communications of the ACM*, 12(6):303–304, June 1969. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

**Zielke:1968:AAI**

- [Zie68] Gerhard Zielke. Algorithm 325: Adjustment of the inverse of a symmetric matrix when two symmetric elements are changed [F1]. *Communications of the ACM*, 11(2):118, February 1968. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).