

A Bibliography of Publications of *Alston Scott Householder*

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Abstract

This bibliography records publications of Alston Scott Householder.

He11, Hec95, KI17, KYP13, LMM96, MOHvdG15, MOHvdG17, MVC⁺16a, MVC⁺16b, MVC⁺18, MB84, MYZ12, OW90, Rol90, RZ99, SEAA08, VM03a, VM03b, XWW07, YFS21]. *QS* [Str09b, Str09a]. *SR* [AB12, SAA09, SAAE08, SAA14]. *U(N)* [IKV06, IKV07]. φ [Gu83]. VGMRES(*m*) [Xu00]. *WY* [BV87, Pug92, SV89].

Title word cross-reference

\$0.65 [P.71]. **\$0.65.** [Rhe72]. 1 [Rol90]. **\$10** [Hou63b]. **\$12.50** [Hou44a, Hou63c]. **\$17.00** [Hou60a]. 2 [Rol90]. **\$2.50** [Hou47b]. 3 [LSA13, WZBW18]. **\$3.00** [P.71, Rhe72]. **\$4.00** [I.75]. **\$6** [Nel54]. ³¹ [PVB⁺92]. *J* [SB16, dLRMP12]. *L₂* [Yan89]. *L_∞* [Yan89]. Λ_S [MPT12]. *LS* [EVZP99, EVZP00, RT96]. *M* [FH59]. **G** [MMT04]. *N* [DZY18, Hou42d]. *qd* [Hou71e]. *QL* [RH99]. *QR* [BDG⁺14a, BDG⁺15, BM85, CM97, CH97, CH98a, CH98b, DHHR08, DHHR09, DBG⁺13, DTZ96, EG02, FYZ08, FIY15,

-D [LSA13]. **-decomposition** [KI17]. **-Dimensional** [DZY18]. **-Hessenberg** [SB16]. **-like** [SEAA08]. **-matrices** [FH59]. **-reflectors** [MMT04].
10th [KM91]. **11/27/1978** [BGHS79]. **135** [Sch69]. **16th** [Hou79]. **17th** [HWG98]. **190** [CM08]. **1955** [Hou56d, Hou56k]. **1956** [Hou56e]. **1957** [Hou59b]. **1958** [Hou59b]. **1964** [HC54, HC65]. **1967** [DH69]. **1972** [Ano72]. **1997** [HWG98]. **19th** [Hou79].

2007 [SM07]. 2009 [May09].

3 [Gu83]. 34 [H.70]. 34- [H.70].

4/21/1909 [BGHS79]. 48 [Ber90].

60 [BHO⁺67, GHL67]. 63-2 [New65].

83b [Gu83]. 860 [Zhu92]. '88 [ML88].

A. [Hou61a, P.71, Rhe72, Ste79]. **Absolute** [BH61]. **Abstracts** [CG93, Bau74].

Accelerating [YL12]. **Acceleration** [MVC⁺16b, MVC⁺18]. **accommodation** [Hou44c]. **Accumulating** [JLQO⁺06].

Accuracy [LL97a]. **accurate** [pWqSmZ14].

Achieving [MVC⁺16a]. **ACM** [Hou56k].

acoustic [HCB15]. **active** [Hec95]. **activity** [Hou41c, Hou41d, Hou41e, Hou42d].

Actualités [Hou35]. **adaptation**

[Luo00, dCWA02]. **Adaptive**

[Att05, JA14, LS09, Att06, Cio90, Dou00, RT96, WZ18, YSLZ13]. **Addition** [Hou42b].

Address [Hou56k, Hou57c]. **Adjacent**

[DHWZ09]. **adjustment** [BL70]. **Advanced** [CH34a, CH34b, DH74, DH34, DH35a,

NH66, RCH35, RH37, SGGH35]. **Advances** [Hou41a]. **again** [Hou74d]. **age** [Hou49a].

Alamos [Ano72]. **albumin** [PVB⁺92].

Alfred [Hou42a]. **Algebra**

[Ano72, Bau74, CG93, DH69, HHOT94, Hou72b, WR71, Hou72a, Hou73b, Hou75a].

Algebraic [Hou54b, HA71, Wil60, CLF10, Hou51b, May09, SEAA08]. **Algèbre**

[Hou61a]. **ALGOL**

[BHO⁺67, GHL67, BG67, Nof10].

Algorithm [Att05, Ber90, BS91, Bow11, BKK18, DZY18, FIY15, HL69, Hou70f, IADM⁺10, LMV18, MVC⁺16a, MVC⁺16b, MVC⁺18, MM94a, MM94b, VM03a, VM03b, AMACH00, Att06, Bro87, BKK17, CRPZ92, Cui13, Dry92, Hec95, Hou71a, Hou71c, Hou71e, Hou73c, Hou74a, HD91, KCN99, LXW09, LY90, LHY92, LL97b, MS76,

MS78, MYZ12, RH99, RS05, RT96, SAS10, SAW98, WWX07, Xu00, YJ01, Yu91, YH11].

Algorithms [CB90, DTLD15, HDT⁺15, PR87, RT08, YFS21, DWA99, CB89, Dub88, HD95, LWZZ16, Liu93, NO97, OW90, PR89, SAA14, TLHY92, dCWA02]. **Algorithmus**

[Dry92]. **AllReduce** [MYZ12]. **Alston**

[Fra72, Gre72, Hay66, Nel54, Var66, Ano69, Ano73, Ano77a, Ano77b, Ano78, Ano80, Ano83, Ano86, Ano95, CV94, I.75, Mer70, OR99, H.S73, Ste93, Wil75a, Wil78, Wil75b, Wil75c]. **am** [Bau74]. **AMP** [PVB⁺92].

analogues [MMT04]. **Analyse** [Hou63a].

analyses [Ger84]. **Analysis**

[ABS⁺07, BS91, CH23, FIY15, Hou51a, Hou53d, Hou55d, Hou56h, Hou56b, Hou63d, Hou64b, Hou64d, Hou75c, Hou79, Hou06a, Hou06c, Ort62, Ort63, P.71, YFS21, Ger84, HWG98, HY40, Hou47b, Hou56f, Hou69, Hou70c, Hou74e, KI17, KZ76, MS76, MYZ12, RS05, SAA09, Sca74, YH41, Hou60a, Hou63c, I.75, Dur54, Fle55, For54, Goh54, Hay66, Hou57b, Nel54, Var66].

Analyzing [Hou50c]. **Angeles** [HFG51].

Announcement [Ano83, Ano86, Ano95, Ano98a, Ano98b, Ano98c]. **Annual**

[HC54, HC65]. **anodal** [Hou43a]. **Antenna**

[XWW07]. **anti** [WWK04a, WWK04b].

anti-jamming [WWK04a, WWK04b].

Anwendungsgebiete [Sch70, Sch69]. **Appl**

[CM08]. **applicability** [AAHVR17].

Application

[Hou56b, Kau79, CLF10, LY90, RS86a].

Applications [Bow11, Cic92, HL69, Hou41a, LMV18, GBCW89, Hou68e, LWZ90, LL97b, TLT91, TLHY92, HHOT94]. **Applied**

[DTLD15, HDT⁺15, PVB⁺92]. **Applying**

[PR68b, PR68a, PR69]. **Approach**

[EJ23, FYZ08, Hou49b, SM13]. **approaches** [SEAA08]. **approximants** [Pet13].

Approximate [Hou58a, Rus18, Hou60a].

Approximation [HY38, Yan89].

Approximations [HHW55]. **April**

[Hou73a]. **ara** [PVB⁺92]. **ara-AMP**

- [PVB⁺92]. **Arbitrary** [ABS⁺07, IV07, IKV06, IKV07, IV08]. **Architecture** [MVC⁺16a, MVC⁺16b, MVC⁺18, KYP13, PSS97, SAS10]. **Architectures** [VM03a, VM03b, TLHY92]. **arise** [DH55]. **Arithmetic** [KM91]. **ARM** [YL12]. **Arnold** [Hou40e]. **Arnoldi** [Bag08]. **array** [TLT91, TLHY92]. **arrays** [TLT91]. **arrival** [HCB15]. **article** [Gu83]. **articles** [Wil75b]. **Ashby** [Hou53a]. **Aspects** [DH69, HA37, SAA09]. **associated** [CLF12, RMP18]. **associative** [LC91]. **Augmented** [Bag08]. **August** [Hou59b]. **Authors** [P.71, Hou69, Hou70c]. **Auto** [TW16]. **Auto-Encoders** [TW16]. **automata** [Hou63b]. **Automatic** [FIY15, Sch69, Sch70]. **aux** [Hou59a]. **Available** [P.71, Rhe72]. **Award** [Ano77a, Ano83, Ano86, Ano95, Ano98a, Ano98b, Ano98c, Ano98d, Ano78, Ano80, Wil75a, Ano69, Ano73, H.S73, Wil78, Ano77b]. **axial** [Hou42c].
- B** [H.70, Sch70]. **B4** [Kor15]. **Backward** [MYZ12]. **balanced** [FD87]. **Band** [Rei67, Sch69, Sch70, Wan87]. **Banded** [Irv11, Irv12, CK02]. **banks** [KKM⁺96]. **Based** [BS91, BKK18, DHWZ09, IADM⁺10, JZZ08, LZ12, Pug92, RT08, RGPH16a, RGPH16b, XWW07, AMACH00, ABS⁺07, Att05, Att06, BKK17, Cui13, DV00, DV03, HCX12, HMA18, HZLW10, HCB15, Kor15, KYP13, LWZZ16, LXYW09, Liu93, LSA13, NO97, RDB05, RT96, SAS10, SL06a, SL06b, Suz15, WWX07, WZ18, WWK04a, WWK04b, Wri06, pWqSmZ14, YSLZ13, YH11, ZL10]. **Basis** [SH50, WZBW18, SH51]. **Batched** [DTLD15, HDT⁺15]. **Bauer** [Sch69, Sch70, MB96]. **Bayesian** [Ger84, Kor15]. **beamformer** [Kor15]. **beamforming** [YSLZ13]. **Behavior** [Hou51a, Hou63b]. **Belge** [Hou63a]. **Benster** [Hou60a]. **Berechnung** [Hes42]. **Berücksichtigung** [Sch69, Sch70]. **besonderer** [Sch69, Sch70]. **best** [Yan89]. **between** [SAA14]. **Bezoutiants** [Hou70a]. **Bi** [Str09a, Str09b]. **Bi-SVD** [Str09a, Str09b]. **Bibliography** [Hou55d, Hou56h]. **Bidiagonalization** [LS09, PSS97, SL06a, SL06b, YL12]. **bidirectional** [LC91]. **Biennial** [HWG98]. **Bigadients** [Hou68a, HS69b, Hou74a, Hou68b, Fra72, Gre72]. **Binary** [HS58]. **binocular** [Hou47b]. **Biochemistry** [Hou44a]. **biological** [WH41]. **biology** [Hou49b, Hou41a]. **Biophysics** [Fit46, HL44, Rei47, Ski46, Hou41b, Hou46]. **bisection** [Her83]. **Bisektion** [Her83]. **BLAST** [JZZ08]. **blind** [YH11]. **Block** [BNP93, DTLD15, HDT⁺15, RZ99, YFS21, Bag08, Dub88, GLZ93, LHY90, LY90, LHY92, RS05, YC97]. **Blocking** [DQ18, FYZ08]. **Bodewig** [Hou57a]. **Body** [WZBW18]. **Book** [Fit46, Fle55, Fra72, GMS⁺76, Goh54, Gre72, H.70, Hou40d, Hou40e, Hou41a, Hou42a, Hou49b, Hou51a, Hou52, Hou53a, HHW55, Hou55e, Hou55f, Hou56a, Hou56b, Hou57a, Hou59a, Hou60a, Hou61a, Hou63a, Hou63b, Hou63c, Hou67, Hou70b, Hou71b, HA71, Hou79, I.75, Nel54, P.71, Rei47, Rhe72, Sch69, Sch70, Ski46, Var66]. **Boreholes** [WZBW18]. **Borgman** [Hou42a]. **borne** [LXYW09]. **Bossett** [Hou61a]. **Bounds** [New65]. **Brain** [Hou53a]. **Brigadients** [Hou71f]. **Bryan** [Hou64c, Hou75b, Hou06b].
- Calcul** [Hou61a]. **Calculations** [Hou56g, BEH12, Hou49a]. **Calculus** [Hou37c, Hou37d, Hou55f, Hou56b, Hou36, Hou40e, Hou57a, Hou42a]. **California** [HFG51]. **Cambridge** [Hou44a]. **Cancelation** [JA14]. **canceller** [HCX12]. **canonical** [CSR10a, CSR10b, GL06]. **Carlo** [HFG51, BHMU85]. **Cartan** [Hou35]. **Case** [Ste11, Mue66a]. **Catalytic** [Hou70f]. **Causality** [Bla63]. **CDMA** [dCWA03]. **cell**

[Hou42c]. **cells** [HW42]. **Cellular** [Hou42c, Hou41b, Hou43b]. **Central** [Fit46, HL44, Rei47, Ski46, Hou46]. **Centre** [Hou63a]. **Century** [MHR80, Hou79]. **Certain** [Hou56c, Hou56i, HB59, HB60]. **chain** [Hou38b]. **Channel** [HMA18, JZZ08, Suz15]. **Channels** [ABS⁺07]. **Characteristic** [BH60a, DH56, HB59, BH61, DH55, Hou64a, Hou68c]. **Chemistry** [MM64]. **Chi** [Hou40b, Hou40c]. **Chi-Square** [Hou40b, Hou40c]. **Choice** [Dan76]. **Cholesky** [BS91]. **circuit** [Hou41d, Hou41e]. **circuits** [Hou38a, Hou42d, LH39]. **Class** [Hou58c]. **Cleve** [Mol13]. **Closed** [Hou57d, SH50, CLF12, SH51]. **cm** [H.70, Hou60a, Hou61a, Hou63c, I.75, P.71, Rhe72]. **cm.** [Hou63a]. **Co** [Hou63c, MVC⁺16a, MVC⁺16b, MVC⁺18]. **Co-Design** [MVC⁺16b, MVC⁺18, MVC⁺16a]. **collaboration** [Hou61a]. **Collection** [MHR80, Wil75b]. **collective** [IV08]. **Colloque** [Hou63a]. **Column** [HMA18, MOHvdG15, MOHvdG17, Ma97]. **combinations** [DS76]. **Comments** [BHMU85, HS69a]. **Commerce** [P.71, Rhe72]. **common** [Hou42d]. **Compact** [Pug92]. **Company** [Hou44a]. **comparisons** [Rol90]. **Compartment** [SH49]. **complete** [Hou41e]. **Complex** [Bow11, Dja06, Hou55f, LA13, ME06, Mue66b, NLJ13a, XWW07, AJI88, CY97, Cui13, MS76, Mue66a, NLJ13b, NLSJ17, SL06a, SL06b, TLT91, TLHY92]. **complex-valued** [Cui13]. **Complexity** [LMM96]. **composed** [GLZ93]. **composite** [TKV15, TKV16]. **Comput** [CM08]. **Computation** [Hou55a, IADM⁺10, Sch70, Fie01, GBCW89, Hes42, Hou54c, May09, Ra193, Sch69, SM07]. **Computational** [LBM90, SM07, SAA09]. **Computations** [BHMU85, Hou63e]. **compute** [pWqSmZ14]. **Computer** [BRSS94, KM91, BRSS94]. **computers** [Hou56l, PSS97, HHW55]. **Computing** [Dax04, FD87, MHR80, Nas90, VM03a, VM03b]. **Concerning** [Hou39a, FH59]. **Condition** [Hou72d, BH60b]. **conditioned** [LL97b]. **Conditioning** [Hou38a]. **conducted** [DH69]. **Conference** [BRSS94, HWG98, SM07]. **conjugates** [PVB⁺92]. **conscious** [Hou63b]. **Consciousness** [Hou63b, Hou51a, Hou51a]. **considering** [SM13]. **Constrained** [dCWA02, DWA99]. **constraint** [YSLZ13]. **constraint-based** [YSLZ13]. **constraints** [AJI88]. **Constructive** [DH69]. **continued** [Pet13]. **Continus** [Hou35]. **control** [Hec95]. **controller** [RDB05]. **Convergence** [Hou56j, RS05, Hou55g, Ost56, Dry92]. **converting** [LWZ90]. **convolutive** [YH11]. **coordinates** [BL70]. **copy** [P.71, Rhe72]. **CORDIC** [HD91, HD95]. **Corfu** [SM07]. **Cornelius** [Sca74]. **Corner** [Mol13]. **Correlated** [JZZ08]. **Correlation** [ABS⁺07]. **coset** [CSR10a, CSR10b]. **Coupling** [TAC18]. **CRAY** [Ber90]. **Creation** [Nof10]. **Critical** [Smi12]. **Criticality** [Hou56g]. **cross** [GBCW89]. **cross-validation** [GBCW89]. **CSAR** [BB08]. **Culbertson** [Hou63b, Hou51a]. **Curtis** [Hou60a]. **Curtiss** [Hou57b]. **Curvature** [Hou37c, Hou37d, Hou36]. **curve** [EVZP99, EVZP00]. **curve-fitting** [EVZP99, EVZP00]. **Curves** [Hou50a, Hou50c].

D [Fit46, Hou60a, Rei47, Ski46, LSA13, WZBW18]. **d'Aire** [Hou35]. **damped** [KT77]. **Dandelin** [Hou59c]. **Danilevskii** [Hou64c, Hou75b, Hou06b]. **DAP** [BM85, MB84]. **Dartmouth** [Hou47b]. **Data** [WZBW18, Hou63b]. **Decay** [Hou50a, Hou50c]. **December** [Bau74, HC54, Hou56d, HC65]. **decomposing** [MS78]. **Decomposition** [GL87, CSR10a, CSR10b, CUSR88a,

CUSR88b, EG02, FYZ08, KI17, KYP13, MNS08, MYZ12, SAAE08, SEAA08, SL06a, SL06b]. **Decompositions** [Rus18]. **definition** [RS86a]. **Definitions** [Hou41c]. **Deflating** [Hou61b]. **deflation** [Fie01, NLSJ17, pWqSmZ14]. **delayed** [HA37]. **Dense** [Kau79]. **Department** [P.71, Rhe72]. **Dependence** [Hou37c, Hou37d, Hou36]. **Derivative** [YSLZ13]. **derivatives** [CM08, NTKN16, NG07]. **Description** [BHO+67]. **Design** [ME06, MVC+16b, MVC+18, RDB05, KKM+96, MVC+16a, Hou53a]. **Detailed** [Hou40b, Hou40c]. **detection** [WWX07]. **Detector** [JZZ08]. **Determinant** [Hou70b, Hou71b]. **determinants** [HS69b]. **Determination** [HF71]. **determining** [Xu00]. **DFE** [IADM+10]. **DFT** [KKM+96]. **diagonal** [ZL10]. **diagonalisation** [RH99]. **Diagonalization** [Ber90, NLSJ17, RS05, YH11, ZL10]. **Diagonals** [DHHR08, DHHR09]. **diagram** [Hou45b]. **Dictionary** [Hou55e]. **Difference** [Hou56c, Hou56i]. **Differential** [EH15]. **diffusion** [HW42]. **Digital** [HHW55, Hou55a, Hou54c, Hou56l]. **Dimensional** [DZY18]. **Direct** [BEH12]. **Direction** [HCB15]. **Direction-of-arrival** [HCB15]. **discrete** [LC91]. **discrimination** [Hou39b, Hou40a, Hou40f, Hou40a]. **Discussion** [YH38, Gu83]. **Discussions** [Hou37b, Hou42b]. **distances** [Bro87, Hou40f, YH38]. **Distributed** [PR87, PR89]. **distribution** [WH41]. **distributions** [ZL10]. **Division** [HC54, HC65]. **DM** [H.70]. **domain** [HBC17, MS76]. **dominant** [Fie01]. **Dover** [I.75]. **Downdating** [BS91, vdGV11]. **Dr.** [Hou26]. **Dresden** [Hou40e]. **DS** [dCWA03]. **DS-CDMA** [dCWA03]. **Dundee** [HWG98]. **Dunod** [Hou61a]. **dynamic** [FYZ08, PSS97]. **dynamical** [AJI88]. **Dynamics** [Hou45a, Hou45b]. **E.** [Hou35, Hou40b]. **E1772** [CHY66]. **each** [P.71]. **Early** [BHMU85]. **ECG** [JA14]. **edition** [Hou60a]. **Editor** [Hou63c, RW62, Wil75c]. **Eduard** [BGHS79]. **Education** [BRSS94]. **EEG** [KI17]. **effect** [Hou43d]. **efficiency** [Hou45b]. **Efficient** [CM97, He11, HMA18, MVC+16a, MVC+16b, MVC+18, MHRB16, RH99, SV89, pWqSmZ14, dCWA03]. **Eigen** [TAC18]. **Eigenlösungen** [Hes42]. **Eigenproblem** [Wil60]. **eigensolutions** [Hes42]. **Eigensystems** [Mue66b, Mue66a]. **Eigenvalue** [NLJ13a, Ort62, Ort63, Rus18, NLJ13b, xZxGpL09]. **Eigenvalues** [HVW70, New65, Hes42, Ral93]. **eigenvectors** [HF71]. **Eigenwerte** [Hes42]. **Einzeldarstellungen** [Sch69, Sch70]. **electrolytes** [HW42]. **electronic** [BEH12, Hou56l]. **Elementary** [CHY66, Hou40d]. **elements** [Hou58b, WH41]. **Elimination** [Hou70a, MM94a, MM94b, KI17]. **Embeddings** [EH15]. **Emphasis** [Hou56b]. **employing** [dCWA02]. **Encoders** [TW16]. **encoding** [LC91]. **Ending** [HC54, Hou56d, Hou56e, HC65]. **Endmember** [LZ12]. **energy** [SM13]. **Engineering** [IKV06, IKV07, SM07]. **English** [Hou55e]. **Enough** [Ste11]. **environments** [HCB15]. **enzyme** [HG43]. **Equation** [Hou70e, Hou43b, HP93]. **Equations** [Bri92, Hou50b, Hou56c, Hou56i, Hou67, MM94a, MM94b, RS85, Rei67, CM08, Hes42, Hou51b, Hou70d, MNS08, NTKN16, NNM07, NG07, Rhe72, Hou40d, Hou67]. **Equivalence** [Hou44b, SAA14]. **Erratum** [Hou68b]. **Error** [CH23, Hou55a, Hou56c, Hou56i, Hou58d, Ort62, Ort63, SAA09, YFS21, MYZ12, ZXLL17]. **Errors** [Hou53b, Hou54c]. **Espaces** [Hou35]. **Essays** [MHR80]. **Establish** [Smi12]. **estimation** [Cic92, HCB15, Yu91]. **estimator** [Cui13]. **etc** [Hou64c, Hou75b, Hou06b].

Etymological [Hou37b, Hou37a]. **Euclid** [Hou74a]. **Euclidean** [BH60b, FL99].
Europe [Nof10]. **Excitation** [Hou38b, Hou39c, Hou43a, Hou44b, Hou44c].
exciting [LH39]. **Excursion** [Hou37b, Hou72c, Hou74c, Hou37a].
Expanding [AAHVR17, HB59]. **Expansion** [TAC18, Pet13]. **Experimental** [SH49].
Experiments [SH50, Wal88a, SH51]. **Exponential** [Hou50a, CKL01, Hou50c].
extension [SSCT14]. **Extensions** [HL69].
Extraction [LZ12, AMACH00]. **Eye** [Hou47b].

F [Sch69, Sch70]. **F.** [Sch69, Sch70]. **Face** [He11, SAS10]. **factor** [Hou44c]. **Factorial** [YH40]. **Factoring** [CB90, CB89, HS69a].
Factorization [BS91, CM97, CH23, CH97, CH98b, DTLD15, HDT⁺15, He11, HS71, LMM96, MOHvdG15, MOHvdG17, MVC⁺16a, MVC⁺16b, MVC⁺18, MB84, PR87, VM03a, VM03b, XWW07, AB12, BM85, CH98a, DTZ96, KKM⁺96, OW90, PR89, RZ99, SAA09].
Factorizations [EJ23, FIY15, Uri10].
Fading [ABS⁺07, JZZ08]. **Fast** [DQ18, IADM⁺10, RGP16a, RGP16b, Cio90, Fie01]. **Fault** [TKV15, TKV16].
Fault-tolerant [TKV15, TKV16]. **Few** [Rus18]. **fiber** [Hou41c, Hou41d, Hou41e, Hou42d]. **Fiedler** [pWqSmZ14]. **Fifth** [Ano72, SM07]. **Fifty** [EJ23]. **Filter** [JA14, WWK07, Cio90, HZLW10, KKM⁺96, YSLZ13, dCWA03].
filtering [LHY90]. **filters** [Cio90, GL06].
Final [Ano77a, Ano77b]. **find** [LSA13].
finding [CLF10, CLF12]. **finite** [FWW06].
Finsler [Hou35]. **FIR** [IADM⁺10]. **Fit** [Hou40c, Hou40b]. **Fitting** [Hou50a, EVZP99, EVZP00, GBCW89, LXYW09].
fixed [SAS10]. **Florida** [ML88]. **Flow** [TW16]. **Focal** [Hou37c, Hou37d, Hou36].
Folley [Hou42a]. **Fondés** [Hou35].
Foreword [Wil75c]. **form** [Dub88, GN86, LWZ90, Wan87]. **forms** [CLF12, Hou41b, Hou42c]. **formula** [LWZ90]. **Formulas** [Hou42b]. **formulation** [EVZP99, EVZP00]. **Forsythe** [Hou73a].
FORTTRAN [Mue66a]. **Four** [Suz15].
Four-channel [Suz15]. **Fox** [MS78]. **FPGA** [SAS10]. **FPGA-based** [SAS10]. **fraction** [Pet13]. **Fractionally** [IADM⁺10].
Fractionally-Spaced [IADM⁺10]. **frames** [FWW06]. **Framework** [DTLD15, HDT⁺15]. **France** [KM91]. **free** [CM08, NTKN16, NG07]. **frequency** [EVZP00, HBC17, ZL10].
frequency-domain [HBC17]. **Frobenius** [Hou71e]. **fully** [NS10]. **function** [FD87, Gu83]. **Functions** [Hou71d, WZBW18, CLF12, GBCW89].
Fundamental [DH69]. **fuzzy** [MNS08, NS10, SM13].

G [H.70, Hou59a]. **Garnir** [Hou59a].
Gatlinburg [Ano72, Bau74, MB96, Mol13, Var90].
Gatlinburgs [Hou74b]. **Gauthier** [Hou63a].
Gauthier-Villars [Hou63a]. **générale** [Hou59a]. **Généralisés** [Hou35].
generalization [Gu83, Tan81].
Generalizations [Hou71a, Hou71c, Hou73c].
Generalized [Att05, Kau87, LMV18, LA13, NLJ13a, NLJ13b, NLSJ17, Xue83, Att06, GBCW89, HCX12]. **Generated** [Hou56c, Hou56i, Hou58d]. **Generation** [FWW06, Hou54c, Hou55a]. **Geological** [WZBW18]. **geometric** [LSA13, SEAA08].
Geometry [EH15, Hou53c]. **George** [Hou73a]. **German** [Dry92, Her83, Hes42, Ost56, Hou55e].
Germany [Bau74]. **Gerschgorin** [HVVW70].
Gersgorin [Bre68]. **Gestalt** [Hou39a].
Givens [DV00, DV03, GL87, PR87, PR89, RW62, Tan82, Tan83, YJ01, ZXLL17].
Gleichungssysteme [Hes42]. **GMRES** [HW86, SAW98, Wal88a, Wal88b].
Goldstine [Hou79]. **Goodness**

[Hou40b, Hou40c]. **GPU**
 [DTLD15, HDT⁺15]. **GPU-Resident**
 [DTLD15, HDT⁺15]. **Graeffe** [Hou59c].
Gram
 [AB12, Dax04, LL97a, OW90, SAA14].
Graph [EH15]. **Graphics** [DQ18]. **graphite**
 [Hou49a]. **graphs** [LBM90]. **Greece** [SM07].
Greenhood [Hou40b]. **Grenoble** [KM91].
grid [SM13]. **Groboillot** [Hou61a]. **Group**
 [BFH52, GH46, GH47, RH41]. **Groupes**
 [Hou35]. **growth** [Hou43b, KH54].
Grundlehren [Sch69, Sch70]. **Gupta**
 [CM08].

H [BH87, Fit46, H.70, Hou57b, Hou59a,
 Hou79, Rei47, Sch69, Sch70, Ski46, MSV09].
H-LLL [MSV09]. **H.** [H.70]. **Hadamard**
 [Hou74d, Suz15]. **Handbook** [Sch69, Sch70].
Hankel [HS69b]. **Hayward** [HHW55].
Heat [EH15]. **Held** [HFG51]. **Herland**
 [Hou55e]. **Herman** [Hou79]. **Hermite**
 [WZBW18]. **Hermitian**
 [Mue66a, Mue66b, SSY96]. **Hessenberg**
 [Hou64c, Hou75b, Hou06b, BKK17, BKK18,
 Dub88, SB16]. **Hessenberg-Triangular**
 [BKK18, BKK17]. **Hg** [Sch70]. **High**
 [DHHR08, DHHR09, VM03a, VM03b,
 vdGV11, AAHVR17, EVZP99, EVZP00,
 KYP13]. **high-frequency** [EVZP00].
High-performance [vdGV11]. **high-speed**
 [EVZP99, KYP13]. **Higher** [Hou60a]. **Hill**
 [Hou63c, Nel54, Hou44b]. **Historical**
 [Bla63, Hou72c, Hou74c]. **History**
 [Hou79, MHR80, Nas90]. **Hit** [Hou50a].
home [SM13]. **homotopies** [Wri06].
Honoring [Wil75c, Wil75b]. **Honour**
 [BRSS94, Sca74]. **Hopfen** [Bau74].
horopter [Hou40g]. **Householder**
 [Ano69, Ano73, Ano77a, Ano77b, Ano80,
 Ano83, Ano86, Ano95, CM08, Dry92, Fit46,
 Fra72, Gre72, Gu83, I.75, Nel54, NO97,
 Ost56, P.71, Rei47, Rhe72, H.S73, Sch69,
 Sch70, Ski46, Var66, Wil78, AMACH00,
 AB12, ABS⁺07, AAHVR17, AJI88, Ano78,

Ano98a, Ano98b, Ano98c, Ano98d, Arm87a,
 Arm87b, Att05, Att06, BEH12, Bag08, BL70,
 BDG⁺14b, BDG⁺14a, BDG⁺15, Ber90,
 BV87, BG67, BS89a, BS89b, BS91, BNP93,
 Bow11, BM85, Bre68, Bri90, Bri92, Bro87,
 BKK17, BKK18, BB08, BG65, CRPZ92,
 CSR10a, CSR10b, DWA99, CM97, CG93,
 CUSR88a, CUSR88b, CK02, CKL01, CY97,
 CV94, Cic92, Cio90, CLF10, CLF12, CH23,
 CH97, CH98a, CH98b, Cui13, Cup84, CB89,
 CB90, Dan76, Dax04, DS76, DHHR08,
 DHHR09, DBG⁺13, DHWZ09].
Householder [DV00, DV03, Dja06, DTZ96,
 DQ18, DTLD15, Dou00, Dru99, Dry92,
 Dub88, Dub00, Dur54, EVZP99, EVZP00,
 EG02, FD87, FL99, FWW06, Fie01, Fle55,
 For54, FYZ08, FIY15, GL06, GLZ93, GN86,
 GL87, Ger84, Goh54, GBCW89, HB12,
 HDT⁺15, HCX12, HL69, Hay66, He11,
 Hec95, Her83, HMA18, HW86, HD91, HD95,
 HP93, HZLW10, HCB15, HBC17, Irv11,
 Irv12, IADM⁺10, IKV06, IKV07, IV07, IV08,
 JA14, JZZ08, JLQO⁺06, KKM⁺96, Kau79,
 Kau87, KI17, KZ76, KCN99, Kor15, KYP13,
 KT77, LMM96, LC91, LA13, LWZZ16,
 LXYW09, LWZ90, LHY90, LY90, LHY92,
 Liu93, LS09, LZ12, LL97a, LSA13, LL97b,
 Luo00, Ma97, MMT04, MS76, MRW68,
 MRW71, MOHvdG15, MOHvdG17, MNS08,
 ME06, MSF81, MVC⁺16a, MVC⁺16b,
 MVC⁺18, MPT12, Mer70, MHRB16, MB84,
 MS78, MB96, Mol13]. **Householder**
 [MSV09, MYZ12, Mue66a, Mue66b, MM94a,
 MM94b, NS10, NTKN16, NLJ13a, NLJ13b,
 NLSJ17, NNM07, NG07, OR99, OW90,
 Ort62, Ort63, Ost56, PSS97, Pet13, PVB⁺92,
 PR87, PR89, PR68b, PR68a, PR69, Pug92,
 RS85, RS86a, RS86b, RS88a, RS88b,
 RKA16, Ral93, RVS07, RVS08, RDB05,
 RH99, Rei67, RS05, Rol90, RW62, RT96,
 RT08, RMP18, RZ99, RGPH16a, RGPH16b,
 Rus18, SAS10, SAA09, SAAE08, SEAA08,
 SAA14, SB16, SL06a, SL06b, SV89, Sha23,
 SSY96, Smi12, SSCT14, SAW98, Ste88,

Ste79, Ste93, Str09b, Str09a, Str09c, Suz15, TAC18, Tan81, Tan82, Tan83, TLT91, TLHY92, TW16, TKV15, TKV16, Tre10, Tsa75, Uri10, Wal88a, Wal88b, Wan87, WWX07, WZ18, WWK04a, WWK07, Wil60, Wil62, Wil75a, Wil75b, Wil75c, WWK04b, Wri06, pWqSmZ14, XWW07, Xu00].
Householder [Xue83, YC97, YJ01, YR05, Yan89, YL12, YSLZ13, YFS21, Yu91, YH11, ZL10, ZXLL17, Zhu92, xZxGpL09, dCWA02, dCWA03, dLRMP12, vdGV11].
Householder-Based [BS91, BKK18, IADM⁺10, RT08, BKK17, WWK04b].
Householder-like [AAHVR17, vdGV11].
Householder-Matrices [ABS⁺07].
Householder-RLS [JA14].
Householder-transform [DWA99].
Householder-transformation-based [Cui13].
Householder-Type [FIY15].
Householder-Verfahren [Her83].
Householders [SM13]. **HQRRP** [MOHvdG15, MOHvdG17]. **human** [Hou49b]. **Hungarian** [ST05a, ST05b].
Hurwitz [Hou68a, Hou68b]. **Hybrid** [VM03a, VM03b, KCN99]. **Hyperbolic** [CB89, CB90, RS85, RS86a, RS86b, RS88a, RS88b, BS89a, BS89b, YC97].
IBM [DH69]. **ICA** [LA13]. **ICCMSE** [SM07]. **idempotent** [HC63, HF71].
identification [Liu93, NO97]. **Identities** [Hou71e, CLF12, HA71]. **IEEE** [KM91]. **II** [P.71, Hou40a, Hou41d, Hou68c, Hou70c, PVB⁺92]. **III** [Hou40f, Hou41e]. **ill** [LL97b]. **ill-conditioned** [LL97b]. **Illinois** [Hou63b]. **Illus** [Hou63b]. **images** [Hou63b].
impedance [WH41]. **Implementation** [Att05, BM85, IADM⁺10, MB84, Wal88b, Att06, HW86, LY90, LHY92, Wal88a, dCWA03]. **implementations** [SAW98].
Implementing [Tsa75]. **Implicit** [WZBW18, Fie01, NLSJ17]. **improvement** [Ost56]. **Improving** [TW16]. **inactivation** [HG43]. **Inclusion** [HVVW70]. **Index** [P.71, Rhe72, HHOT94, Hou69, Hou70c, Hou70d, Hou72a, Hou73b, Hou75a].
individuals [RH41]. **induced** [Hou43d].
Industrielles [Hou35]. **Inequalities** [Hou65, BH60b, HP93]. **Infinetestimal** [Hou56b]. **influence** [RH41]. **Information** [P.71]. **Inner** [Sha23]. **Institute** [Hou47b].
integrators [DV00, DV03]. **Interaction** [BFH52, GBCW89]. **interconnects** [EVZP99, EVZP00]. **Interference** [HZLW10, WZ18, dCWA03]. **International** [BRSS94, SM07, May09]. **Interpretation** [SH49, SH50, SH51]. **Interscience** [Hou60a].
Interval [Dja06]. **Interview** [Mer70].
Introduction [Hou55f, Hou59a, Hou40e].
invariance [YH40]. **Inverse** [DH56, DH55, SSCT14, pWqSmZ14, xZxGpL09].
Inversion [Hou60b]. **Inverting** [Hou57d, Hou58c]. **Investigations** [SH49].
involutory [HC63]. **involving** [BH60b].
ions [IV08]. **iPSC** [Zhu92]. **iPSC/860** [Zhu92]. **irrationalals** [Pet13]. **isometric** [Hou45b]. **Isotopic** [SH49]. **Issue** [Wil75c].
iteration [pWqSmZ14]. **Iterations** [Ost56]. **Iterations** [Hou55c, Hou56j, Hou51b, Hou55g, HS69a, Ost56]. **Iterative** [BG67, HB60, CM08, HB12, Hou53b, Hou53c, NLSJ17, NNM07, NG07, RKA16].
IV [Ano80, Hou42d].
J [Hou55f, Hou61a, Hou70b, Hou71b, Sch69, Sch70, Hou69, P.71]. **J.** [BH87]. **James** [Hou51a, Hou63b]. **jamming** [WWK04a, WWK04b]. **January** [Hou73a].
Jeanne [HHW55]. **John** [Hou57b, Hou63c].
Johnson [Hou61a]. **joint** [YH11, ZL10].
Joseph [Hou44a]. **Jr** [HHW55]. **Jr.** [Hou40b, HHW55]. **July** [HFG51, May09].
June [Ano72, DH69, HWG98, HFG51, KM91, Hou56e].
Kantorovich [Hou60a, Hou65]. **Kaplan** [HA71]. **Karl** [Hou42a]. **Kernel** [EH15, ZXLL17]. **KIAS** [May09]. **kinetics**

[HG43]. **Koenig** [GH66, Hou74d].
Konvergenzordnung [Dry92].
Konvergenzverbesserung [Ost56]. **Kopal**
 [Hou56b]. **Korea** [May09]. **Korganoff**
 [Hou61a]. **Krylov**
 [Hou60a, Hou64c, Hou75b, Hou06b]. **KWIC**
 [Hou69, Hou70c, Hou70d, Hou72a, Hou73b,
 Hou75a, P.71, Rhe72].

L [BGHS79, Hou42a, Hou61a, Sch69, Sch70].
L. [Hou60a]. **Laboratory**
 [DH69, P.71, Rhe72]. **lactosaminated**
 [PVB+92]. **Lanczos**
 [Hou64c, Hou75b, Hou06b, Fie01, Sca74].
Landahl [Fit46, Rei47, Ski46]. **Language**
 [Nof10]. **Latent** [HY38]. **law** [HY40]. **laws**
 [HY40]. **LDA** [He11]. **Learning** [Hou51d].
Least [Arm87a, Arm87b, BG67, BG65,
 CH97, CH98b, HL69, PR68b, PR68a, PR69,
 RS85, Rei67, Bro87, CH98a, Cui13, KCN99,
 KT77, LL97a, Ma97, Tan82, Tan83, Zhu92].
least-squares [KCN99]. **Lecture** [Ano72].
Lectures [Hou72b]. **lemmas** [Hou41c].
length [Hou45b]. **length-tension** [Hou45b].
lengths [Hou40f]. **Leo** [Hou55e]. **Letter**
 [Rw62]. **leurétude** [Hou59a]. **level**
 [HCX12, LY90, LHY92, WZ18]. **Leverrier**
 [Hou64c, Hou75b, Hou06b]. **lifting** [Suz15].
lifting-Householder-based [Suz15]. **like**
 [AAHVR17, RKA16, SEAA08, vdGV11].
Limites [Hou59a]. **line**
 [Liu93, ME06, NO97]. **linéaire** [Hou61a].
Linear [BG67, Bri92, BG65, Dja06, HL69,
 Hou50b, Hou54b, Hou55c, Hou56i, HB60,
 Ma97, MM94a, MM94b, PR68b, PR68a,
 PR69, Rei67, Rus18, WR71, CK02, CLF12,
 DS76, GLZ93, Hes42, Hou53b, Hou53c,
 Irv11, Irv12, LL97a, MNS08, NS10, Arm87a,
 Arm87b, HHOT94]. **linearer** [Hes42]. **Ling**
 [Gu83]. **LLL** [DZY18, MSV09]. **LMS**
 [DWA99]. **Lobacevskii** [Hou59c].
Localization [Hou64a, Hou70a, Hou68d].
locomotion [Hou45a]. **London** [Nel54].
loops [RVS07, RVS08]. **Lovitt** [Hou40d].

Low [DHHR08, DHHR09, WWK04a].
Low-Profile [DHHR08, DHHR09].
low-rank [WWK04a]. **LS** [LHY90].
Lunenburg [Hou47b]. **Lyapunov** [HP93].
M [CM08, Hou42a, Hou67]. **machine**
 [Ma97]. **Macmillan** [Hou44a].
macronuclear [KH54]. **malarial** [Hou43c].
management [SM13]. **Mapping** [FL99].
March [Hou59b]. **massively** [KCN99].
Math [CM08, Gu83]. **Mathematical**
 [Hou41a, Hou41b, HL44, Hou46, Hou55e,
 SH50, Hou39c, Hou49b, SH51, Fit46,
 Hou47b, Hou49b, Rei47, Ski46].
Mathematics [Hou55b, MM64, Hou56l,
 HC54, Hou56d, Hou56e, Hou59b, HC65].
Mathematik [Var90]. **Mathématique**
 [Hou59a]. **Mathématiques** [Hou63a].
mathematischen [Sch69, Sch70]. **Matrices**
 [ABS+07, CB90, Dan76, DHHR08, DHHR09,
 Hay66, Hou54a, Hou57d, Hou58c, Hou61b,
 Hou64d, HVW70, Hou75c, Hou06c, Kau87,
 Mue66b, P.71, Smi12, Var66, BV87, CSR10a,
 CSR10b, CB89, FH59, GN86, Hou58b,
 HC63, Hou64a, Hou66, Hou68d, Hou69,
 Hou70c, HF71, LWZZ16, LWZ90, MPT12,
 Mue66a, NLSJ17, SSY96, Uri10, Wil62,
 YR05, xZxGpL09, dLRMP12]. **matrics**
 [FD87]. **Matrix** [EJ23, HY38, Hou56j,
 Hou58a, Hou58e, Hou60b, Hou63e, Hou72d,
 Kau79, New65, TAC18, BH60b, CRPZ92,
 CKL01, Dub88, Gu83, Hou55g, Hou59d,
 Hou64c, Hou75b, Hou06b, MRW68, MRW71,
 RH99, RMP18, SB16, SL06a, SL06b, Tan81,
 Wan87, Wri06, Hou57a]. **Matrizen** [H.70].
Maximum [LZ12]. **McGraw**
 [Hou63c, Nel54]. **McGraw-Hill**
 [Hou63c, Nel54]. **mechanism**
 [Hou39b, Hou40a, Hou40f]. **Meetings**
 [BHMU85, MB96]. **memoriam**
 [BH87, CV94]. **memory** [Hou63b, LC91].
mesh [DTZ96]. **Method**
 [Dja06, He11, HMA18, Hou50a, LZ12,
 Mue66b, Ort62, Ort63, Ost56, PR68b,

Pug92, TAC18, Wil60, Bag08, CK02, CM08, HB12, Her83, HW86, HFG51, HZLW10, KKM⁺96, MNS08, MSF81, Mue66a, NS10, NTKN16, NNM07, NG07, PVB⁺92, SSCT14, Tan82, Tan83, Wal88a, Wal88b, WZ18, Wil62, pWqSmZ14, Xu00]. **Methode** [Hou35]. **Méthodes** [Hou61a]. **Methods** [Hou50b, Hou57d, Hou58c, HB59, Hou60a, HB60, SM07, AAHVR17, Cic92, Hou53c, Hou64c, Hou75b, Hou06b, RKA16, ST05a, ST05b]. **Métriques** [Hou35]. **Mexico** [Ano72]. **Michigan** [Var90]. **Microfiche** [P.71, Rhe72]. **microwave** [GL06]. **MIMO** [KYP13, WWX07]. **Mind** [Hou63b]. **Minimal** [Hou59d]. **minimization** [BEH12]. **minimum** [ZXLL17]. **minor** [AMACH00]. **Mixed** [YFS21]. **Mixing** [Smi12]. **MLD** [HMA18]. **MMSE** [IADM⁺10]. **MMSE-DFE** [IADM⁺10]. **Mobile** [Hou35]. **Mode** [TAC18]. **model** [KH54]. **Modeling** [DHWZ09, WZBW18]. **Models** [BFH52, GBCW89]. **Modern** [SM07]. **Modification** [Pug92, KT77]. **Modified** [CM08, HB12, JZZ08, NNM07, NG07, AB12, OW90, SAA14, SSY96]. **módszerek** [ST05a, ST05b]. **molecules** [DH55]. **Moments** [BH60a, Hou68c]. **Monnier** [Hou44b]. **Monte** [BHMU85, HFG51]. **Moore** [SSCT14]. **morphogenesis** [Hou44a]. **movements** [Hou41b]. **MP/48** [Ber90]. **MR0645691** [Gu83]. **MR2339762** [CM08]. **Multi** [GH47]. **Multi-Group** [GH47]. **Multi-Reflector** [GH47]. **multichannel** [HBC17]. **Multidimensional** [KYP13, Bro87, Hec95, YH41]. **Multigradients** [Hou71d]. **Multiple** [GH46, Hou50a]. **Multiple-Hit** [Hou50a]. **Multiplexing** [XWW07]. **Multiplier** [Hou70f]. **Multistage** [WWK07, HZLW10, YSLZ13, dCWA03]. **Multitasking** [Ber90]. **Munich** [Bau74]. **muscle** [Hou45b]. **Muscular** [Hou45b]. **mutual** [RH41, YH38].

N [Hou26]. **Names** [HS58]. **National** [P.71, Rhe72]. **Navigation** [WWK07, HZLW10, WWK04a, WWK04b]. **near** [Bau74]. **Needham** [Hou44a]. **Negative** [DHHR08, Hou58b]. **Nelson** [Hou42a]. **NEON** [YL12]. **nerve** [Hou41c, Hou41d, Hou41e, Hou42d]. **nerve-fiber** [Hou41c, Hou41d, Hou41e, Hou42d]. **Nervous** [Fit46, HL44, Rei47, Ski46, Hou44b, Hou44c, Hou46]. **Nets** [Hou51c]. **Network** [DHWZ09]. **Networks** [MHRB16, Hou41c, Hou41d, Hou41e, Hou42d]. **Neural** [Hou47a, Hou51c, Hou51a, MHRB16, Hou39b, Hou40a, Hou40f]. **Neuron** [LH39]. **neurones** [Hou38b]. **Neutron** [Hou49a]. **NF** [Hou61a]. **Nicolas** [Hou41a]. **NMR** [PVB⁺92]. **No** [Hou35, CM08, Gu83]. **Noise** [Att05, JA14, Att06, Hec95, HBC17, KI17]. **Non** [DHHR08, CLF12, Hou44c, Hou58b, Hou61a]. **non-linear** [CLF12]. **Non-Negative** [DHHR08, Hou58b]. **non-normal** [Hou44c]. **Noncircular** [LA13]. **Nonlinear** [Hou70e, Rhe72, CM08, HB12, Hou70d, NTKN16, NNM07, NG07]. **Nonnegative** [DHHR09]. **Nonsingularity** [Hou72d]. **Nonstandard** [Sha23]. **Nonsymmetric** [Hou58e]. **Nonterminating** [Hou55c]. **Noor** [CM08]. **normal** [Hou44c, LSA13]. **normalizable** [Hou66]. **normalization** [Hou64c, Hou75b, Hou06b]. **Norms** [Hou54a, Hou68d, BH61, Hou59d, Hou68e]. **Note** [HW86, Hou43a, Hou43b, HVW70, Rei67, Tsa75, CM08, FH59, Hou40g, HW42, NO97, YH41]. **Notes** [Hou37b, Hou42b, Hou51d, Ano72]. **Notice** [Ano77a, Ano77b]. **Notion** [Hou35]. **November** [ML88]. **Numbers** [HS58]. **Numer** [Gu83]. **Numerical** [Ano72, Bau74, CG93, Dur54, Fle55, For54, Goh54, Hay66, Hou50b, Hou53d, Hou55d, Hou56h, Hou56b, Hou56l, Hou63c, Hou63d, Hou64b, Hou64d, Hou70e, HS71, Hou72b,

Hou75c, Hou79, Hou06a, Hou06c, I.75, KZ76, MS76, Nel54, P.71, Rhe72, Var66, Hou56f, Hou69, Hou70c, Hou70d, Hou72a, Hou73b, Hou74e, Hou75a, Sca74, HWG98, ST05a, ST05b, Hou56b, Hou57b]. **Numerically** [Dou00]. **Numerically-robust** [Dou00]. **Numerik** [H.70]. **Numerikus** [ST05a, ST05b]. **Numérique** [Hou61a, Hou63a]. **Numerische** [Var90].

Oak [P.71, Rhe72, Hou80]. **Oblique** [Ste11]. **Observations** [Hou56g]. **ODE** [Wal88a]. **Oliver** [Sch70]. **Olver** [Sch69]. **OMC** [Dru99]. **On-line** [Liu93, ME06, NO97]. **one** [Ral93, xZxGpL09]. **one-sided** [Ral93]. **operator** [FL99]. **Optimal** [DS76, SAAE08, SAA09]. **Optimization** [Arm87a, Arm87b]. **optimized** [SAS10]. **optimizing** [FYZ08]. **ORACLE** [Hou55b]. **orbit** [LXYW09]. **order** [AAHVR17, Dry92]. **Ore** [WZBW18]. **Orlando** [ML88]. **Ortega** [MS76]. **Orthogonal** [GN86, GL87, MHRB16, PR87, LSA13, PR89, RT96, RMP18]. **Orthogonalization** [Sha23, LL97a]. **orthogonalizations** [Dax04]. **Orthonormal** [DV00, DV03, RGPH16a, RGPH16b]. **Ostrowski** [Hou67, Dry92]. **oversampled** [KKM⁺96].

P [HHW55, Hou60a, Hou61a, Hou63a, Hou63c, PVB⁺92]. **Padé** [HS69b, Hou71e]. **Panel** [Hou56d, Hou56e, Hou59b]. **paperbound** [I.75]. **papers** [Sca74]. **Parallel** [FIY15, LMM96, LS09, LL97b, MM94a, MM94b, OW90, Ral93, WWX07, CRPZ92, CUSR88a, CUSR88b, CK02, KCN99, Ma97, PSS97, RH99, RZ99, SAW98]. **paramecium** [KH54]. **parameter** [Liu93, NO97]. **parameters** [Cui13]. **Parametrisation** [MHRB16]. **parasites** [Hou43c]. **paraunitary** [KKM⁺96]. **Paris** [Hou61a, Hou63a]. **Parser** [Luo00]. **Part** [Sch70, Arm87a, Arm87b]. **Partial** [Hou56c].

partitioning [LBM90]. **passive** [HCB15]. **Pavlovian** [Hou51d]. **Penrose** [SSCT14]. **Penultimate** [Hou70f]. **perceived** [Hou40f]. **perception** [Hou47a]. **Performance** [DHHR08, DHHR09, FIY15, KI17, VM03a, VM03b, vdGV11]. **Period** [HC54, Hou56d, Hou56e, Hou59b, HC65]. **phase** [RDB05]. **phenomena** [Hou49b]. **Philadelphia** [Hou56k]. **Physics** [MM64]. **Physique** [Hou59a]. **Pile** [GH47]. **Piles** [GH46]. **pipelined** [LY90, LHY92]. **Pivoted** [DZY18]. **Pivoting** [MOHvdG15, MOHvdG17, Ma97]. **placement** [Hec95]. **Plane** [BB08]. **Point** [Hou37c, Hou37d, CKL01, Hou36, SAS10]. **points** [YH38]. **Pole** [EVZP99, EVZP00]. **Pole-residue** [EVZP99, EVZP00]. **Polynomial** [Hou51b, HB59, HS71, CLF12, HS69a]. **polynomiography** [NTKN16]. **Population** [RVS07, RVS08]. **positive** [FH59]. **possible** [Hou43c]. **Postscript** [Hou73c]. **power** [pWqSmZ14]. **pp** [H.70, Hou44a, Hou47b, Hou63b, I.75, Nel54, P.71, Rhe72]. **Prasad** [Hou70b, Hou71b]. **Precision** [YFS21]. **Prediction** [DHWZ09]. **Preface** [Ste79]. **preferences** [SM13]. **preliminary** [Hou41c]. **Presentations** [Hay66]. **preserving** [LWZZ16]. **Presidential** [Hou56k, Hou57c]. **Press** [Hou44a, Hou47b, Hou63b]. **Price** [H.70, Hou60a, Hou61a, Hou63c, I.75, P.71, Rhe72]. **Primary** [P.71, Hou69, Hou70c]. **Princeton** [Hou47b]. **Principles** [Hou53d, Hou56f, Hou74e, Hou06a, For54, I.75, Dur54, Fle55, Goh54, Nel54]. **Printed** [P.71, Rhe72]. **Probabilistic** [CH23]. **Problem** [He11, Hou68a, New65, NLJ13a, Ort62, Ort63, Hou68b, HBC17, NLJ13b, Tan82, Zhu92]. **Problèmes** [Hou59a]. **Problems** [CH34a, CH34b, CHY66, CH97, CH98b, DH74, DH56, DH34, DH35a, DH35b, HL69, Hou56b, Hou58a, NH66, PR68b, PR68a, PR69, RCH35, RH37, SGGH35, CH98a,

DH55, KZ76, LL97a, LL97b, Tan83, xZxGpL09]. **Proceedings** [BRSS94, HFG51, SM07, DH69, HWG98, ML88, KM91, May09]. **processes** [RW62]. **Processing** [BB08, Ste88, TLT91, TLHY92]. **processor** [WWK04a]. **Processors** [CM97, DQ18]. **Product** [Sha23, MMT04]. **Products** [Cup84, BV87, SV89, YC97]. **Prof** [BRSS94]. **Profile** [DHHR08, DHHR09]. **Programming** [Nof10, BG67, FYZ08]. **Progress** [HC54, Hou56d, Hou56e, Hou59b, HC65]. **projection** [MS78]. **projections** [Dax04]. **Prony** [Hou50a, PVB⁺92]. **Proof** [Hou40b, Hou40c, Bre68]. **Proper** [Hou64c, Hou75b, Hou06b]. **properties** [YR05]. **pseudoinversion** [MSF81]. **psychophysical** [HY40, YH41]. **Publications** [Dur54, Hay66, Hou35, Hou40b, Hou40c, Hou57b]. **Published** [Hou47b]. **Publishers** [Hou60a].

QR [CH23]. **QRD** [JZZ08]. **QRM** [HMA18]. **quadratic** [Pet13]. **quadrupedal** [Hou45a]. **Quantum** [IV07, IKV06, IKV07, IV08, RVS07, RVS08]. **quasimatrix** [Tre10]. **Quaternion** [SL06a, SL06b, LWZZ16]. **Questions** [Hou37b]. **Quotient** [Att05, Att06].

R [H.70, Hou40b]. **Radial** [WZBW18]. **Rajaraman** [BRSS94]. **Randomization** [MOHvdG15, MOHvdG17]. **rank** [DWA99, Rol90, WWK04a, xZxGpL09]. **rank-** [Rol90]. **rank-one** [xZxGpL09]. **Rashevsky** [Hou41a, HA37, Hou39a, Hou43b, Hou44b]. **Rayleigh** [ABS⁺07, Att05, Att06]. **reaching** [RDB05]. **Reactor** [Hou56g]. **Real** [DHWZ09, IADM⁺10, LWZZ16, SSY96, Wri06, SL06a, SL06b]. **Real-Time** [DHWZ09, IADM⁺10]. **Realization** [MVC⁺16b, MVC⁺18, Yan89]. **realizations** [FD87]. **receiver** [WWK04b]. **Receivers**

[ABS⁺07, WWK07, HZLW10, KYP13, WWK04a]. **Recherches** [Hou63a]. **Recognition** [He11, SAS10]. **Reconstructing** [BDG⁺14b, BDG⁺14a, BDG⁺15, DBG⁺13]. **Recurrent** [MHRB16]. **Recursive** [Bow11, KCN99, LHY90, AJI88, Cui13, LWZ90, TLT91]. **reduced** [DWA99]. **reduced-rank** [DWA99]. **Reduction** [Bri92, BKK18, DZY18, Wan87, Bri90, BKK17, Dub88, GN86, Hou64c, Hou75b, Hou06b, HBC17, SB16]. **Reductions** [MM94a, MM94b, Rei67]. **reference** [Hou43c]. **Refinement** [BG67]. **Reflection** [DZY18, FL99, Gu83, Tan81, TKV15, TKV16]. **Reflections** [BNP93, Cup84, GL87, IV07, LA13, MHRB16, BEH12, Dru99, EG02, IKV06, IKV07, IV08, NLSJ17, RVS07, RVS08, SAW98, Wri06, dCWA03]. **Reflector** [GH47]. **Reflectors** [DQ18, GH46, RGP16a, RGP16b, Rus18, MMT04]. **reflexes** [HA37]. **regularized** [Zhu92]. **Related** [Hou65]. **relations** [Hou49b]. **reliable** [Fie01]. **Remainder** [Hou70f]. **Remembers** [MB96]. **Reminiscences** [Hou80, Var90]. **Repère** [Hou35]. **Report** [HC54, Hou56d, Hou56e, Hou59b, HC65]. **Representation** [Pug92, BV87, Irv11, Irv12, SV89, YC97]. **Research** [DH69]. **Resident** [DTLD15, HDT⁺15]. **residue** [EVZP99, EVZP00]. **response** [Hou47a]. **results** [CLF10]. **Retiring** [Hou57c]. **revealed** [RVS07, RVS08]. **reverberant** [HCB15]. **Review** [Fit46, Fle55, For54, Fra72, Goh54, Gre72, H.70, Hou40d, Hou40e, Hou41a, Hou42a, Hou44a, Hou47b, Hou49b, Hou51a, Hou53a, HHW55, Hou55e, Hou55f, Hou56b, Hou57a, Hou59a, Hou60a, Hou61a, Hou63a, Hou63b, Hou63c, Hou67, Hou70b, Hou71b, HA71, Hou79, I.75, Nel54, P.71, Rei47, Rhe72, Sch69, Sch70, Ski46, Var66, Hou52, Hou56a].

Reviews [Hou35, Hou40c, GMS⁺76]. **Revisited** [Dub00, JLQO⁺06]. **Ridge** [P.71, Rhe72, Cic92, Hou80]. **Ridge-type** [Cic92]. **ring** [PSS97]. **RLS** [BNP93, Cio90, JA14, KI17, LY90, LHY92, RT08]. **Road** [DHWZ09]. **Robots** [Hou63b]. **robust** [Dou00]. **root** [CLF10, CLF12, Str09c]. **Roots** [BH60a, HY38, BH61, Hou51b, Hou64a, Hou68c, Hou68d]. **Ross** [Hou53a]. **rotation** [FL99, ZXLL17]. **rotation-reflection** [FL99]. **Rotational** [Hou58d]. **Rotations** [GL87]. **Rounding** [CH23, YFS21]. **Routh** [Hou68a, Hou68b]. **Row** [BNP93, CUSR88a]. **Rudolf** [Hou47b]. **Rüschlikon** [DH69]. **Russian** [Hou60a]. **Rutishauser** [H.70, Sch69, Sch70].

S [Ano69, Ano73, Ano77a, Ano77b, Ano78, Ano80, Ano83, Ano86, Ano95, Dur54, Fit46, Fle55, Fra72, Goh54, Gre72, Hay66, I.75, Nel54, P.71, Rei47, Rhe72, H.S73, Sch69, Sch70, Ski46, Ste79, Var66, Wil75a, Wil78, Wil75b, Wil75c]. **Samelson** [Sch69, Sch70]. **Sample** [He11]. **samples** [HZLW10]. **Samuelson** [Hou64c, Hou75b, Hou06b]. **SAR** [LXYW09]. **Scalable** [SAW98]. **scalar** [MMT04]. **scaling** [Bro87]. **scattered** [CUSR88a, CUSR88b]. **schemes** [CLF10]. **Schmidt** [AB12, Dax04, LL97a, OW90, SAA14]. **schools** [Hou55b, Var90]. **Schröder** [Hou72c, Hou74c]. **Schur** [LMV18]. **Schwarz** [H.70]. **Science** [EW90, SM07]. **Sciences** [Hou55e]. **Scientific** [BHMU85, Nas90]. **Scientifiques** [Hou35]. **Scott** [CV94, Mer70, OR99, Ste93, Hou55f]. **Sebastião** [Hou73c, Hou71c, Hou71a]. **second** [CM08, NTKN16, NG07]. **See** [Bau74]. **Selection** [FIY15, XWW07, HZLW10, KH54]. **Self** [AMACH00, LH39]. **self-exciting** [LH39]. **Self-stabilized** [AMACH00]. **Semiannual** [Hou56d, Hou56e]. **Sense** [Hou63b]. **Seoul** [May09]. **Separation** [Hou66, YH11, ZL10].

September [Hou56k, SM07]. **series** [Ger84]. **Service** [P.71]. **set** [YH38]. **shifts** [NLSJ17]. **Sided** [MM94b, MM94a, Ral93]. **sidelobe** [HCX12]. **signal** [Ste88]. **Signals** [JA14, PVB⁺92]. **significance** [YH40]. **Signs** [Dan76]. **Silva** [Hou73c, Hou71a, Hou71c]. **SIMD** [KCN99]. **Simple** [Hou51d, DH55, Hou41d, Hou41e]. **Simplex** [LZ12]. **simulation** [EVZP99, EVZP00]. **Single** [Hou56b, Hou70e]. **singular** [Fie01, HC63, SL06a, SL06b]. **Sinica** [Gu83]. **Size** [He11, Hou43d]. **skeletal** [Hou45b]. **Skew** [Gu83, Tan81]. **Skew-reflection** [Tan81]. **Skinny** [BDG⁺14a, BDG⁺15, DBG⁺13, FIY15]. **Slant** [BB08]. **Sliding** [Str09a, KI17, Str09b]. **Small** [He11]. **smart** [SM13]. **social** [Hou49b, RH41]. **Solution** [Hou56c, Hou56i, Hou58a, MM94a, MM94b, RS85, Rei67, Wil60, LL97a, Tan82, Tan83, Hou67]. **Solutions** [BG67, BG65, CH34a, CH34b, CHY66, DH74, DH34, DH35a, DH35b, NH66, RCH35, RH37, SGGH35, Hou53b, KT77, Ma97]. **Solve** [He11]. **Solving** [HL69, Hou50b, Hou54b, Hou55c, HB60, MNS08, xZxGpL09, HB12, Hou53c, NS10, NTKN16, Wal88a]. **Some** [BFH52, BH60b, DH55, DH56, HA37, Hou50b, Hou51d, Hou56g, Hou57d, Hou65, Hou68e, LMV18, RKA16, YR05, AAHVR17, Hou53c, HS69a, HA71]. **Sorting** [HMA18]. **source** [ZL10]. **sources** [HCB15]. **Space** [WWK07, FL99, Hou26, HZLW10, LXYW09, WWK04a, Yan89]. **space-borne** [LXYW09]. **Space-Time** [WWK07, HZLW10, WWK04a]. **Spaced** [IADM⁺10]. **spaces** [MMT04]. **spanned** [RMP18]. **Sparse** [DTZ96, GL87, Kau79, Kau87, ZXLL17, GN86, Tan82, Tan83]. **Sparsifying** [RGPH16a, RGPH16b]. **Spatial** [XWW07]. **Spatially** [JZZ08]. **Special** [Wil75c, YJ01]. **spectral** [Yu91]. **speed** [EVZP99, KYP13]. **spline**

[GBCW89]. **sporulation** [Hou43c]. **Springfield** [P.71, Rhe72]. **Square** [Hou40b, Hou40c, Str09c, CUSR88b, Cui13, Zhu92]. **Square-root** [Str09c]. **squared** [Bro87, ZXLL17]. **Squares** [Arm87a, Arm87b, BG67, BG65, CH97, CH98b, HL69, PR68b, PR68a, PR69, RS85, Rei67, Bro87, CH98a, KCN99, KT77, LL97a, Ma97, Tan82, Tan83]. **Stability** [BS91, CH97, CH98a, CH98b]. **Stabilized** [BS89a, BS89b, AMACH00]. **stable** [MSF81, Wal88a]. **Stan** [HA71]. **standard** [KZ76]. **State** [SH50, Hou41c, Hou41d, Hou41e, Hou42d, RVS07, RVS08, SH51]. **states** [IV08]. **Statistical** [WH41]. **Steady** [SH50, Hou41c, Hou41d, Hou41e, Hou42d, SH51]. **steady-state** [Hou41c, Hou41d, Hou41e, Hou42d, SH51]. **Steffensen** [Dry92, Ost56, Dry92, Ost56]. **Stiefel** [H.70, Sch69, Sch70, BGHS79]. **stiff** [Wal88a]. **stochastic** [KH54]. **storage** [SV89]. **storage-efficient** [SV89]. **stratagem** [CUSR88a, CUSR88b]. **strategy** [FYZ08]. **striated** [Hou45b]. **Structure** [EH15, BEH12, Hou47a, LWZZ16, RDB05]. **structure-preserving** [LWZZ16]. **Structured** [CB90, CB89]. **structures** [WWK04b]. **Studies** [Hou39c, Sca74]. **Study** [HCX12, HBC17, DH55, PVB+92]. **Sturm** [Hou74a]. **Stuttgart** [H.70]. **subarray** [HCX12, WZ18]. **Submitted** [CG93]. **subroutines** [Mue66a]. **Subspace** [Att05, Str09a, AMACH00, Att06, Dou00, Fie01, Str09b, Str09c]. **subspaces** [Irv11, Irv12, RMP18]. **summer** [Var90]. **Supercomputational** [EW90]. **Supercomputing** [ML88]. **Superscalar** [CM97]. **suppression** [HZLW10, WZ18, dCWA03]. **surface** [LSA13]. **Survey** [Hou57d, Hou63c]. **Survival** [Hou50a]. **SVD** [EG02, Str09b, Str09a]. **Switzerland** [DH69]. **Symbolic** [May09]. **Symmetric** [NLJ13a, Ort62, Ort63, CRPZ92, HF71, MRW68, MRW71, NLJ13b, NLSJ17, Wan87, Wil62]. **Symmetrischer** [H.70]. **Symplectic** [AB12, SEAA08, RMP18, SAA09, SAAE08, SAA14, SB16, YJ01]. **Symposia** [Mol13, Var90]. **Symposium** [Ano72, Bau74, CG93, HFG51, Hou63e, KM91, DH69, May09]. **synapse** [Hou42d]. **synchronous** [Hou43c]. **Synthesis** [GL06, IV07, IV08, TAC18]. **System** [HL44, Rei67, SH49, Hou46, MNS08, Fit46, Rei47, Ski46]. **Systematic** [EJ23]. **Systems** [BRSS94, Dja06, Hou50b, Hou54b, Hou55c, HB60, Hou67, IV07, SH50, XWW07, AJI88, CK02, GLZ93, HB12, Hec95, Hes42, Hou53b, Hou53c, KCN99, NS10, SH51, WH41]. **Systolic** [EG02, LHY92, LY90, TLT91].

T [Hou51a, HHW55, Hou63b]. **T1** [Hou51c]. **Table** [Hou71e, HS69b]. **Tall** [BDG+14a, DBG+13, BDG+15, FIY15]. **Tall-Skinny** [DBG+13]. **Tan** [Gu83]. **Tangent** [LSA13]. **Technical** [P.71]. **Techniques** [Hou56b, EVZP99, EVZP00, LBM90]. **technology** [YL12]. **Tennessee** [P.71, Rhe72]. **tension** [Hou45b]. **Terminating** [Hou55c]. **terms** [YH38]. **Test** [Hou40b, Hou40c, Smi12]. **Teubner** [H.70]. **their** [YH38]. **Theorem** [DH69, GH66, HVW70, HA37, Hou74d]. **theorems** [Bre68, Hou66]. **Theoretical** [TAC18]. **Théorie** [Hou35]. **theories** [Hou44b]. **Theory** [GH46, GH47, Hay66, Hou40d, Hou64d, Hou75c, Hou06c, Var66, CLF10, Hou26, Hou39a, Hou39c, Hou41c, Hou41d, Hou41e, Hou42d, Hou43d, Hou44c, Hou49b, Hou68e]. **third** [Hou60a]. **Three** [EJ23, RVS07, RVS08]. **three-state** [RVS07, RVS08]. **tight** [FWW06]. **Time** [DHWZ09, IADM+10, WWK07, Ger84, Hou26, HZLW10, WWK04a, ZL10]. **time-frequency** [ZL10]. **Timing** [Rol90]. **tissue** [Hou49a]. **Toad** [Hou51c]. **Todd**

[Hou63c]. **tolerant** [TKV15, TKV16]. **Tome** [Hou61a]. **tool** [LSA13]. **topology** [GL06]. **TOPSIS** [SM13]. **Tracer** [SH50, SH51]. **Tracers** [SH49]. **Tracker** [Str09a, Str09b]. **tracking** [Dou00, Str09c]. **Transcendental** [Hou71d]. **transducer** [Hec95]. **transfer** [FD87]. **Transfers** [SH49]. **Transform** [BB08, ME06, MVC⁺16b, MVC⁺18, TAC18, DWA99, CY97, Luo00, MSF81, Suz15, Xu00, YC97, Yu91, ZL10, Hou55f]. **Transformation** [Att05, BG67, Bow11, DHWZ09, HMA18, Kau79, Kau87, LZ12, MVC⁺16a, Tsa75, AMACH00, AJI88, Att06, Cic92, Cui13, FL99, GLZ93, Ger84, Gu83, HCX12, HCB15, HBC17, KZ76, LXYW09, LWZ90, LY90, LHY92, Liu93, LL97a, LSA13, LL97b, NO97, RDB05, RZ99, SSY96, Tan81, TLHY92, WWX07, Xue83, Yan89, YH11, ZXLL17, Zhu92, dCWA02]. **transformation-based** [Att06]. **Transformations** [Arm87a, Arm87b, BG65, DTL15, Dub00, HDT⁺15, IV07, MB84, NLJ13a, PR68a, PR69, RS85, Rus18, BL70, BS89a, BS89b, BM85, CSR10a, CSR10b, Dax04, DS76, DV00, DV03, Dou00, FD87, FWW06, Fie01, GL06, GN86, IKV06, IKV07, IV08, JLQO⁺06, LWZZ16, LHY90, Ma97, MMT04, NLJ13b, RS86a, RS86b, Ral93, Rol90, RT96, SAA09, SAAE08, SEAA08, SB16, SL06a, SL06b, SV89, TLT91, Wal88b, Wan87, YJ01, vdGV11]. **Transforms** [RGPH16a, RGPH16b, RS88a, RS88b, Ste88]. **transient** [EVZP99, EVZP00]. **Translated** [Hou60a]. **Translation** [GHL67]. **trapped** [IV08]. **trapping** [RVS07, RVS08]. **Treatment** [Hou70e, Rhe72, Hou70d]. **tri** [Hou42c]. **tri-axial** [Hou42c]. **Triangular** [BKK18, Cup84, BKK17, GN86, LWZ90]. **Triangularization** [Hou58e, Tre10]. **tridiagonal** [Wan87]. **Tridiagonalization** [Hou58d, CRPZ92, CUSR88a, CUSR88b, GBCW89, MRW68, MRW71, SSY96]. **Trigonometry** [Hou42b]. **Trude** [Hou72c]. **Trudi** [Hou74c]. **TSQR** [BDG⁺14b]. **Twentieth** [MHR80]. **Twice** [Ste11]. **Two** [GH46, LY90, MM94a, MM94b, SH49, Hou44c, LHY92]. **Two-Compartment** [SH49]. **two-factor** [Hou44c]. **Two-level** [LY90, LHY92]. **Two-Sided** [MM94b, MM94a]. **Type** [FIY15, Cic92, HP93]. **U** [P.71, Rhe72]. **Unitary** [Hou58e, IV07, CSR10a, CSR10b, IV08, KZ76, Uri10]. **units** [KH54]. **University** [Hou44a, Hou47b, Hou63b, Var90]. **Unraveling** [Nof10]. **up-and-downdating** [vdGV11]. **updates** [Rol90]. **Updating** [Cup84, DWA99]. **Upon** [Hou37c, Hou37d, Hou36]. **upper** [GN86, LWZ90, SB16]. **Urban** [DHWZ09]. **Urbana** [Hou63b]. **USA** [Ano72]. **Using** [BNP93, BB08, He11, JA14, MHRB16, MB84, MM94a, MM94b, SH49, Smi12, WZBW18, BL70, BM85, CUSR88a, CUSR88b, CKL01, DS76, Dou00, EVZP99, EVZP00, FD87, GL06, GN86, KKM⁺96, KCN99, LHY90, MNS08, MSF81, MSV09, SAS10, SL06a, SL06b, TW16, Wal88b, Yan89, Yu91, ZL10, ZXLL17]. **V** [Ano83, BRSS94, CM08, Hou60a, JZZ08]. **V-BLAST** [JZZ08]. **Va** [Rhe72]. **validation** [GBCW89]. **Value** [DH56, DH55, SL06a, SL06b]. **valued** [Cui13]. **Values** [Smi12, HC63, Hou64c, Hou75b, Hou06b]. **variable** [RDB05, Hou56b]. **Variables** [Hou55f]. **variation** [BL70]. **Variational** [TW16]. **Variations** [Hou37c, Hou37d, Hou36]. **Vector** [DHWZ09, pWqSmZ14]. **Vectors** [BDG⁺14a, DBG⁺13, Hou54a, BDG⁺14b, BDG⁺15, Hou64c, Hou75b, Hou06b, LSA13, RMP18]. **Verfahren** [Ost56, Her83]. **Verlag** [H.70]. **Vernon** [Hou40d]. **version** [RH99]. **versus** [GL87]. **vertex** [LBM90]. **VI** [Bau74, Hou47b, Ano86]. **via** [Dax04, Luo00,

SAA09, SAW98, xZxGpL09, vdGV11]. **view** [CKL01]. **viewpoint** [Hou56l]. **vii** [P.71, Rhe72, Ano95]. **viii** [P.71]. **Villars** [Hou63a]. **Virginia** [P.71]. **vision** [Hou47b]. **Visually** [Hou40f]. **VLSI** [TLHY92]. **Voetter** [Hou64c, Hou75b, Hou06b]. **Vol** [Sch69, Sch70]. **Volume** [LZ12, P.71, HHOT94, Hou69, Hou70c, P.71].

[AB12]

W [Hou42a, Hou53a, Sch70]. **water** [Hou49a]. **Webber** [Hou64c, Hou75b, Hou06b]. **Webber-Voetter** [Hou64c, Hou75b]. **Weber** [HY40]. **Weighted** [CH97, CH98b, CH98a, SSCT14]. **weights** [Hou40a]. **which** [DH55]. **Whitehead** [Hou26]. **Wiener** [HZLW10, WWK07, YSLZ13, dCWA03]. **Wilkinson** [BH87]. **William** [Hou40d, Hou42a]. **Window** [Str09a, KI17, Str09b]. **Wissenschaften** [Sch69, Sch70]. **Within** [SH49].

x [I.75, Ano98a, Ano98b, Ano98c, Ano98d, Ber90]. **X-MP** [Ber90]. **X-MP/48** [Ber90]. **XII** [CG93]. **xiv** [Hou63b]. **xv** [Hou60a]. **xvi** [Hou44a, Hou63c]. **xxvii** [Hou61a].

years [HHOT94]. **York** [Hou44a, Hou60a, I.75, Nel54]. **York-London** [Nel54]. **Young** [Bro87].

Z [Hou70c, P.71]. **Zdenek** [Hou56b]. **zero** [ZL10]. **Zeros** [Hou71d]. **zur** [Ost56]. **Zürich** [DH69]. **Zürich-Rüschlikon** [DH69].

References

Amat:2017:EAS

[AAHVR17] Sergio Amat, Ioannis K. Argyros, Miguel A. Hernández-Verón, and Natalia Romero. Expanding the applicability of

[AJI88]

some high order Householder-like methods. *Algorithms (Basel)*, 10(2):Paper No. 64, 13, 2017. ISSN 1999-4893.

Agoujl:2012:SMG

S. Agoujl and A. H. Bentbib. Symplectic modified Gram-Schmidt as a symplectic Householder *SR* factorization. *Int. J. Math. Stat.*, 11(1):58–69, 2012. ISSN 0973-8347 (print), 0974-7117 (electronic).

Alexandropoulos:2007:HMB

G. C. Alexandropoulos, K. Berberidis, N. C. Sagias, F. I. Lazarakis, A. A. Alexandridis, and K. P. Dangakis. Householder-matrices based analysis of SC receivers over Rayleigh fading channels with arbitrary correlation. In *2007 IEEE 18th International Symposium on Personal, Indoor and Mobile Radio Communications*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 1-4244-1143-2, 1-4244-1144-0. ISSN 2166-9570 (print), 2166-9589 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4394147>.

Amirouche:1988:RHT

F. M. L. Amirouche, Tongyi Jia, and Sitki K. Ider. A recursive Householder transformation for complex dynamical systems with constraints. *Journal of Applied Mechanics*, 55(3):

- 729–734, 1988. CODEN JAM-CAV. ISSN 0021-8936 (print), 1528-9036 (electronic).
- [AMACH00] K. Abed-Meraim, S. Attallah, A. Chkeif, and Y. Hua. Self-stabilized minor subspace extraction algorithm based on Householder transformation. In *Proceedings of the Tenth IEEE Workshop on Statistical Signal and Array Processing*, pages 90–93. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. ISBN 0-7803-5988-7. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=870088>. IEEE catalog no. 00TH8496.
- [Ano69] Anonymous. Alston S. Householder Award. *The Computer Journal*, 12(4):392, November 1969. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL <http://comjnl.oxfordjournals.org/content/12/4/392.full.pdf+html>.
- [Ano72] Anonymous, editor. *Lecture notes: Fifth Gatlinburg Symposium on Numerical Algebra, Los Alamos, New Mexico, USA, June 5–10, 1972*. Los Alamos Scientific Laboratory of the University of California, Los Alamos, New Mexico, 1972. LCCN QA297 .G34 1972.
- [Ano73] **Abed-Meraim:2000:SSM**
- [Ano77a] Anonymous. Alston S. Householder Award. *Numerische Mathematik*, 21(1):i, 1973. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).
- [Ano77b] **Anonymous:1969:AHA**
- [Ano77b] Anonymous. Alston S. Householder Award (1977) — final notice. *Linear Algebra and its Applications*, 17(3):189, 1977. CODEN LAA-PAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL <http://www.sciencedirect.com/science/article/pii/002437957790060X>.
- [Ano78] **Anonymous:1972:LNF**
- [Ano78] Anonymous. The Alston S. Householder award. *Linear Algebra and its Applications*, 21(1):1, July 1978. CODEN LAA-PAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL <http://www.sciencedirect.com/science/article/pii/0024379587901959>.
- Anonymous:1973:AHA**
- Anonymous:1977:AHAAa**
- Anonymous:1977:AHAb**
- Anonymous:1978:AHA**

- [Ano80] **Anonymous:1980:AHA**
 Anonymous. Alston S. Householder award IV (1981). *Linear Algebra and its Applications*, 32(??):1, August 1980. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL <http://www.sciencedirect.com/science/article/pii/0024379580900026>.
- [Ano83] **Anonymous:1983:AAH**
 Anonymous. Announcement: Alston S. Householder Award V (1984). *Numerische Mathematik*, 42(2):258, November 1983. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).
- [Ano86] **Anonymous:1986:AAH**
 Anonymous. Announcement: Alston S. Householder Award VI (1987). *Numerische Mathematik*, 49(4):459, July 1986. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).
- [Ano95] **Anonymous:1995:AAH**
 Anonymous. Announcement: Alston S. Householder Award VII. *Linear Algebra and its Applications*, 230(1-3):1-??, November 15, 1995. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).
- [Ano98a] **Anonymous:1998:AHAA**
 Anonymous. Announcement: Householder Award X. *Numerische Mathematik*, 81(1):161-162, November 1998. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).
- [Ano98b] **Anonymous:1998:AHAb**
 Anonymous. Announcement: Householder Award X. *Numerische Mathematik*, 81(2):321-322, December 1998. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).
- [Ano98c] **Anonymous:1998:AHAc**
 Anonymous. Announcement: Householder Award X. *BIT Numerical Mathematics*, 38(3):618, September 1998. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL <http://www.mai.liu.se/BIT/contents/bit38.html>.
- [Ano98d] **Anonymous:1998:HAX**
 Anonymous. Householder Award X. *Linear Algebra and its Applications*, 283(1-3):301-??, November 1, 1998. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).
- [Arm87a] **Armstrong:1987:OHTa**
 Jim Armstrong. Optimization of Householder transformations. Part I. Linear least squares. Technical report, CONVEX Computer Corporation, 701 N. Plano Road, Richardson, TX 75081, USA, 1987. 495-498 pp.

- [Arm87b] **Armstrong:1987:OHTb** Jimn Armstrong. Optimization of Householder transformations. Part I. Linear least squares. In *Proceedings of 1987 International Conference on Parallel Processing*, pages 495–498. Penn State University Press, University Park, PA, USA, 1987.
- [Bag08] **Baglama:2008:ABH** James Baglama. Augmented block Householder Arnoldi method. *Linear Algebra and its Applications*, 429(10):2315–2334, November 1, 2008. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).
- [Att05] **Attallah:2005:GRQ** S. Attallah. The generalized Rayleigh’s quotient adaptive noise subspace algorithm: A Householder transformation based implementation. In *Proceedings of the 2005 Asia-Pacific Conference on Communications*, pages 541–544. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005. ISBN 0-7803-9132-2. ISSN 2163-0771. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1554119>.
- [Bau74] **Bauer:1974:GVS** Friedrich L. Bauer, editor. *Gatlinburg VI: Symposium on Numerical Algebra, December 15–22, 1974, Hopfen am See, near Munich, Germany. Abstracts*. Technische Universität, Institut für Mathematik, Munich, West Germany, 1974. LCCN ????
- [BB08] **Burki:2008:SPC** Jehanzeb Burki and Christopher F. Barnes. Slant plane CSAR processing using Householder transform. *IEEE Transactions on Image Processing*, 17(10):1900–1907, October 2008. CODEN IIPRE4. ISSN 1057-7149 (print), 1941-0042 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4623239>.
- [Att06] **Attallah:2006:GRQ** S. Attallah. The generalized Rayleigh’s quotient adaptive noise subspace algorithm: a Householder transformation-based implementation. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 53(1):3–7, 2006. ISSN 1549-7747 (print), 1558-3791 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1576914>.
- [BDG⁺14a] **Ballard:2014:RHVb** G. Ballard, J. Demmel, L. Grigori, M. Jacquelin, H. D. Nguyen, and E. Solomonik. Reconstructing Householder vectors from tall-skinny *QR*. In *2014 IEEE 28th International Parallel and Dis-*

- tributed Processing Symposium*, pages 1159–1170. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014. ISBN 1-4799-3800-9, 1-4799-3799-1. ISSN 1530-2075. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6877344>. [BEH12]
- Ballard:2014:RHVa**
- [BDG⁺14b] Grey Ballard, James Demmel, Laura Grigori, Mathias Jacquelin, Hong Diep Nguyen, and Edgar Solomonik. Reconstructing Householder vectors from TSQR. Report SAND2014-1384C 503512, Sandia National Laboratory, Albuquerque, NM, USA, February 1, 2014. 19 pp. URL <https://www.osti.gov/biblio/1315576-reconstructing-householder-vectors-from-tsqr>. Lecture slides. [BFH52]
- Ballard:2015:RHV**
- [BDG⁺15] G. Ballard, J. Demmel, L. Grigori, M. Jacquelin, N. Knight, and H. D. Nguyen. Reconstructing Householder vectors from Tall-Skinny *QR*. *Journal of Parallel and Distributed Computing*, 85(??):3–31, November 2015. CODEN JPD CER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S074373151500101X>; <https://www.osti.gov/biblio/1236219-reconstructing-householder-vectors-from-tall-skinny-qr>. [BG65]
- Baerman:2012:DME**
- K. Baerman, T. Eirola, and V. Havu. Direct minimization of electronic structure calculations with Householder reflections. *arxiv.org*, ??(??):1–15, April 5, 2012. URL <https://arxiv.org/abs/1204.1204>.
- Berrington:1990:MHD**
- K. A. Berrington. Multitasking the Householder diagonalization algorithm on the CRAY X-MP/48. In Evans and Wilson [EW90], chapter 13, pages 155–158. ISBN 0-306-43663-9, 1-4684-5820-5 (ebook). LCCN QA76.5 .S89437 1990.
- Bales:1952:SGI**
- Robert Freed Bales, Merrill M. Flood, and Alston Scott Householder. Some group interaction models. Research memorandum RM-953, RAND Corporation, Santa Monica, CA, USA, 1952. 66 pp. URL https://www.rand.org/pubs/research_memoranda/RM953.html.
- Businger:1965:LLS**
- Peter A. Businger and Gene H. Golub. Linear least squares solutions by Householder transformations. *Numerische Mathematik*, 7(3):269–276, June 1965. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). Also in

[WR71, pp. 111–118], Contribution I/8.

Bjorck:1967:API

- [BG67] Åke Björck and Gene H. Golub. Algol programming: Iterative refinement of linear least squares solutions by Householder transformation. *BIT*, 7(4):322–337, December 1967. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL <http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=7&issue=4&page=322>. [BH61]

Bauer:1979:ES

- [BGHS79] F. L. Bauer, G. H. Golub, A. S. Householder, and K. Samelson. Eduard L. Stiefel: 4/21/1909–11/27/1978. *Numerische Mathematik*, 32(4):480–481, December 1979. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). With a German translation. [BHMU85]

Bauer:1960:MCR

- [BH60a] F. L. Bauer and A. S. Householder. Moments and characteristic roots. *Numerische Mathematik*, 2(1):42–53, December 1960. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic).

Bauer:1960:SII

- [BH60b] F. L. Bauer and A. S. Householder. Some inequalities involving the Euclidean condition

of a matrix. *Numerische Mathematik*, 2(1):308–311, December 1960. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic).

Bauer:1961:ANC

F. L. Bauer and A. S. Householder. Absolute norms and characteristic roots. *Numerische Mathematik*, 3(1):241–246, December 1961. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic).

Bauer:1987:MJH

F. L. Bauer and A. S. Householder. In memoriam: J. H. Wilkinson (1919–1986). *Numerische Mathematik*, 51(1):1–2, May 1987. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic).

Burks:1985:CEM

Arthur W. Burks, Alston S. Householder, N. Metropolis, and S. M. Ulam. Comments on early Monte Carlo computations and scientific meetings. *Annals of the History of Computing*, 7(2):147–148, April/June 1985. CODEN AHCOE5. ISSN 0164-1239. URL <http://dlib.computer.org/an/books/an1985/pdf/a2141.pdf>; <http://links.jstor.org/sici?sici=0002-9890%28196502%2972%3A2%3C47%3AEEICC%3E2.0.CO%3B2-T>; <http://www.computer.org/annals/an1985/a2141abs.htm>.

- [BHO⁺67] Friedrich L. Bauer, Alston S. Householder, Frank W. J. Olver, Heinz Rutishauser, Klaus Samelson, and Eduard Stiefel. *Description of ALGOL 60*, volume 1a of *Handbook for Automatic Computation*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1967. ISBN 3-540-03826-4, 3-642-86934-3 (e-book), 3-642-86936-X (print), 3-662-38103-6. xii + 326 pp. LCCN QA76.5 .R87. URL <http://www.springerlink.com/content/978-3-642-86934-1>. [Bla63]
- [BKK17] Zvonimir Bujanović, Lars Karlsson, and Daniel Kressner. A Householder-based algorithm for Hessenberg-triangular reduction. *arxiv.org*, ??(??):??, October 23, 2017. URL <https://arxiv.org/abs/1710.08538>. [BM85]
- [BKK18] Zvonimir Bujanović, Lars Karlsson, and Daniel Kressner. A Householder-based algorithm for Hessenberg-triangular reduction. *SIAM Journal on Matrix Analysis and Applications*, 39(3):1270–1294, 2018. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). [BNP93]
- [BL70] J. Baker and V. Lewicke. A variation of coordinates adjustment using Householder transformations. *Bulletin Géodésique (Toulouse)*, 97(1):225–228, September 1970. CODEN BGDQAG. ISSN 0007-4632.
- [Bow11] C. Bowen. A recursive complex Householder transformation algorithm and its applications.

Bauer:1967:DA**Blakemore:1963:HC****Bowgen:1985:IFD****Bujanovic:2017:HBA****Bojanczyk:1993:BRU****Bujanovic:2018:HBA****Bowen:2011:RCH****Baker:1970:VCA**

- In *2011 Fourth International Conference on Intelligent Computation Technology and Automation*, volume 2, pages 945–948. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2011. ISBN 1-61284-289-5. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=5751047>. [Bro87]
- Brenner:1968:GTH**
- [Bre68] J. L. Brenner. Geršgorin theorems by Householder’s proof. *Bulletin of the American Mathematical Society*, 74:625–627, 1968. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic). [BRSS94]
- BrinchHansen:1990:HR**
- [Bri90] Per Brinch Hansen. Householder reduction. Electrical Engineering and Computer Science Technical Report 78 (SU-CIS-90-39), School of Computer and Information Science, Syracuse University, Syracuse, NY, USA, December 1990. ii + 13 pp. URL https://surface.syr.edu/eecs_techreports/78. [BS89a]
- BrinchHansen:1992:HRL**
- [Bri92] Per Brinch Hansen. Householder reduction of linear equations. *ACM Computing Surveys*, 24(2):185–194, June 1992. CODEN CMSVAN. ISSN 0360-0300 (print), 1557-7341 (electronic). URL <http://brinch-hansen.net/papers/1992a.pdf>; [http://www.](http://www.acm.org/pubs/toc/Abstracts/0360-0300/130851.html) [BS89b]
- Browne:1987:YHA**
- M. W. Browne. The Young–Householder algorithm and the least squares multidimensional scaling of squared distances. *Journal of Classification*, 4(2): 175–190, September 1987. ISSN 0176-4268 (print), 1432-1343 (electronic).
- Balakrishnan:1994:CSE**
- N. Balakrishnan, T. Radhakrishnan, D. Sampath, and S. Sundaram, editors. *Computer Systems and Education. Proceedings of the International Conference on Computer Systems and Education in Honour of Prof. V. Rajaraman*. Tata McGraw-Hill, New Delhi, India, 1994. ISBN 0-07-462044-4.
- Bojanczyk:1989:SHHa**
- A. W. Bojanczyk and A. O. Steinhardt. Stabilized hyperbolic Householder transformations. In *International Conference on Acoustics, Speech, and Signal Processing*, volume 2, pages 1278–1281. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1989. ISSN 1520-6149. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=266669>.
- Bojanczyk:1989:SHHb**
- Adam W. Bojańczyk and Allan O. Steinhardt. Stabi-

- lized hyperbolic Householder transformations. *IEEE Trans. Acoustics, Speech, and Signal Processing*, 37(8):1286–1288, 1989. CODEN IETABA. ISSN 0096-3518. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=31277>.
- [BS91] Adam W. Bojańczyk and Allan O. Steinhardt. Stability analysis of a Householder-based algorithm for downdating the Cholesky factorization. *SIAM Journal on Scientific and Statistical Computing*, 12(6):1255–1265, November 1991. CODEN SIJCD4. ISSN 0196-5204 (print), 2168-3417 (electronic).
- [BV87] Christian H. Bischof and Charles F. Van Loan. The WY representation for products of Householder matrices. *SIAM Journal on Scientific and Statistical Computing*, 8(1):S2–S13, January 1987. CODEN SIJCD4. ISSN 0196-5204 (print), 2168-3417 (electronic). URL <https://www.osti.gov/biblio/6535818-wy-representation-products-householder-matrices>. Parallel processing for scientific computing (Norfolk, Va., 1985).
- [CB89] George Cybenko and Michael Berry. Hyperbolic Householder algorithms for factoring structured matrices. Technical Report CSRD 877, University of Illinois at Urbana-Champaign, Center for Supercomputing Research and Development, Urbana, IL 61801, USA, May 1989. 29 pp.
- [CB90] **Bojanczyk:1991:SAH** G. Cybenko and M. Berry. Hyperbolic Householder algorithms for factoring structured matrices. *SIAM Journal on Matrix Analysis and Applications*, 11(4):499–520, October 1990. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).
- [CG93] **Bischof:1987:RPH** T. F. Chan and G. H. Golub. The XII Householder symposium on numerical algebra: Submitted abstracts. CAM Report 9–12, Department of Mathematics, University of California, Los Angeles, Los Angeles, CA, USA, 1993.
- [CH34a] **Charosh:1934:PSA** Mannis Charosh and A. S. Householder. Problems and solutions: Advanced problems: 3628. *American Mathematical Monthly*, 41(8):522–523, October 1934. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).
- [CH34b] **Court:1934:PSA** N. A. Court and A. S. Householder. Problems and solutions: Advanced problems:
- Cybenko:1989:HHA**

3639. *American Mathematical Monthly*, 41(10):636–637, December 1934. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). [CH23]
- [CH97] Anthony J. Cox and Nicholas J. Higham. Stability of Householder QR factorization for weighted least squares problems. Numerical Analysis Report 301, Manchester Centre for Computational Mathematics, Manchester, England, February 1997. 17 pp. To appear in Numerical Analysis 1997, Proceedings of the 17th Dundee Conference. [CHY66]
- [CH98a] A. J. Cox and N. J. Higham. Stability of Householder QR factorization for weighted least squares problems. In *Numerical analysis 1997 (Dundee)*, volume 380 of *Pitman Res. Notes Math. Ser.*, pages 57–73. Longman Scientific and Technical, Harlow, Essex, UK, 1998.
- [CH98b] Anthony J. Cox and Nicholas J. Higham. Stability of Householder QR factorization for weighted least squares problems. In Griffiths et al. [HWG98], pages 57–73. ISBN 0-582-31261-2 (paperback). ISSN 0269-3674. LCCN QA297 .D85 1997.
- Michael P. Connolly and Nicholas J. Higham. Probabilistic rounding error analysis of Householder QR factorization. *SIAM Journal on Matrix Analysis and Applications*, 44(3):1146–1163, 2023. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL <https://epubs.siam.org/doi/10.1137/22M1514817>.
- Henry Cox, A. S. Householder, and K. L. Yocom. Problems and solutions: Solutions of elementary problems: E1772. *American Mathematical Monthly*, 73(5):543–544, May 1966. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL [http://links.jstor.org/sici?sici=0002-9890\(196605\)73:5<543:E>2.0.CO;2-0&origin=MSN](http://links.jstor.org/sici?sici=0002-9890(196605)73:5<543:E>2.0.CO;2-0&origin=MSN).
- David A. Cicci. Applications of the Householder transformation to Ridge-type estimation methods. *Applied Mathematics and Computation*, 51(2–3):159–165, October 1992. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL <http://www.sciencedirect.com/science/article/pii/0096300392900718>.

- [Cio90] **Cioffi:1990:FHF**
J. Cioffi. The fast Householder filters — RLS adaptive filter. In *International Conference on Acoustics, Speech, and Signal Processing*, volume 3, pages 1619–1622. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. ISSN 1520-6149. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=115735>.
- [CK02] M. M. Chawla and R. R. Khazal. A parallel Householder method for banded linear systems. In *Proceedings of Neural, Parallel, and Scientific Computations*, volume 2, pages 175–178. Dynamic, Atlanta, GA, USA, 2002.
- [CKL01] **Chen:2001:NPV**
J. T. Chen, S. R. Kuo, and C. F. Lee. A new point of view for the Householder matrix by using matrix exponential. *International Journal of Applied Mathematics*, 7(3):289–308, 2001. ISSN 1311-1728 (print), 1314-8060 (electronic).
- [CLF10] **Clapperton:2010:NTR**
James A. Clapperton, Peter J. Larcombe, and Eric J. Fennessey. New theory and results from an algebraic application of Householder root finding schemes. *Utilitas Mathematica*, 83:3–36, 2010. CODEN UTMADA. ISSN 0315-3681.
- [CLF12] **Clapperton:2012:NCF**
James A. Clapperton, Peter J. Larcombe, and Eric J. Fennessey. New closed forms for Householder root finding functions and associated non-linear polynomial identities. *Utilitas Mathematica*, 87:131–150, 2012. CODEN UTMADA. ISSN 0315-3681.
- [CM97] **Carrig:1997:EHF**
James J. Carrig, Jr. and Gerard G. L. Meyer. Efficient Householder *QR* factorization for superscalar processors. *ACM Transactions on Mathematical Software*, 23(3):362–378, September 1997. CODEN ACM-SCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL <http://www.acm.org/pubs/citations/journals/toms/1997-23-3/p362-carrig/>.
- [CM08] **Chen:2008:NMH**
Bilian Chen and Changfeng Ma. A note on: “Modified Householder iterative method free from second derivatives for nonlinear equations” [Appl. Math. Comput. **190** (2007), no. 2, 1701–1706; MR2339762] by M. A. Noor and V. Gupta. *Applied Mathematics and Computation*, 203(2):913–915, September 15, 2008. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL

<http://www.sciencedirect.com/science/article/pii/S0096300308002178>.

Cabaleiro:1992:PAH

- [CRPZ92] J. C. Cabaleiro, F. F. Rivera, O. G. Plata, and E. L. Zapata. A parallel algorithm for Householder's tridiagonalization of a symmetric matrix. *Cybernet. Systems*, 23(3-4):345–357, 1992. ISSN 0196-9722 (print), 1087-6553 (electronic).
- [Cup84] J. J. M. Cuppen. On updating triangular products of Householder reflections. *Numerische Mathematik*, 45(3):403–409, December 1984. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Cabrera:2010:CCDa

- [CSR10a] Renan Cabrera, Traci Strohacker, and Herschel Rabitz. The canonical coset decomposition of unitary matrices through Householder transformations. *arxiv.org*, ??(??):??, August 14, 2010. URL <https://arxiv.org/abs/1008.2477>.
- [CUSR88a] H. Y. Chang, S. Utku, M. Salama, and D. Rapp. A parallel Householder tridiagonalization stratagem using scattered row decomposition. *International Journal for Numerical Methods in Engineering*, 26(4):857–873, 1988. CODEN IJNMBH. ISSN 0029-5981 (print), 1097-0207 (electronic).

Cabrera:2010:CCDb

- [CSR10b] Renan Cabrera, Traci Strohacker, and Herschel Rabitz. The canonical coset decomposition of unitary matrices through Householder transformations. *Journal of Mathematical Physics*, 51(8):082101:1–082101:7, August 2010. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL http://jmp.aip.org/resource/1/jmapaq/v51/i8/p082101_s1.
- [CUSR88b] H. Y. Chang, S. Utku, M. Salama, and D. Rapp. A parallel Householder tridiagonalization stratagem using scattered square decomposition. *Parallel Computing*, 6(3):297–311, March 1988. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).

Cui:2013:HTB

- [Cui13] Bo Wen Cui. Householder-transformation-based recursive
- [CV94] Philippe G. Ciarlet and Richard S. Varga. In memoriam: Alston Scott Householder, 1904–1993. *Numerische Mathematik*,

least square estimator algorithm for complex-valued parameters. *J. Anhui Univ. Nat. Sci.*, 37(4):14–20, 2013. ISSN 1000-2162.

Cuppen:1984:UTP

J. J. M. Cuppen. On updating triangular products of Householder reflections. *Numerische Mathematik*, 45(3):403–409, December 1984. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Chang:1988:PHTa

H. Y. Chang, S. Utku, M. Salama, and D. Rapp. A parallel Householder tridiagonalization stratagem using scattered row decomposition. *International Journal for Numerical Methods in Engineering*, 26(4):857–873, 1988. CODEN IJNMBH. ISSN 0029-5981 (print), 1097-0207 (electronic).

Chang:1988:PHTb

H. Y. Chang, S. Utku, M. Salama, and D. Rapp. A parallel Householder tridiagonalization stratagem using scattered square decomposition. *Parallel Computing*, 6(3):297–311, March 1988. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).

Ciarlet:1994:MAS

Philippe G. Ciarlet and Richard S. Varga. In memoriam: Alston Scott Householder, 1904–1993. *Numerische Mathematik*,

- 68(2):187, July 1994. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL <http://link.springer.de/link/service/journals/00211/bibs/4068002/40680187.htm>; <http://science.springer.de/nmee/bibs/4068002/40680187.htm>. [DBG⁺13]
- [CY97] Kuo-Liang Chung and Wen-Ming Yan. The complex Householder transform. *IEEE Transactions on Signal Processing*, 45(9):2374–2376, 1997. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=622959>.
- [Dan76] B. Danloy. On the choice of signs for Householder’s matrices. *Journal of Computational and Applied Mathematics*, 2(1):67–69, 1976. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL <http://www.sciencedirect.com/science/article/pii/0771050X76900425>.
- [Dax04] Achiya Dax. Computing projections via Householder transformations and Gram–Schmidt orthogonalizations. *Numerical Linear Algebra with Applications*, 11(7):675–692, September 2004. CODEN NLAAEM.
- [dCWA02] Marcello L. R. de Campos, Stefan Werner, and José Antonio Apolinário, Jr. Constrained adaptation algorithms employing Householder transformation. *IEEE Transactions on Signal Processing*, 50(9):2187–2195, 2002. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1025582>.
- [dCWA03] M. L. R. de Campos, S. Werner, and J. A. Apolinario. On an efficient implementation of the multistage Wiener filter through Householder reflections for DS-CDMA interference suppression. In *GLOBECOM ’03. IEEE Global*

Demmel:2013:RHV

James Demmel, Grey Malone Ballard, Laura Grigori, Mathias Jacquelin, Hong Diep Nguyen, and Edgar Solomonik. Reconstructing Householder vectors from tall-skinny QR . Report SAND2013-9366C 480703, Sandia National Laboratory, Albuquerque, NM, USA, October 1, 2013. 28 pp. URL <https://www.osti.gov/biblio/1116855-reconstructing-householder-vectors-from-tall-skinny-qr>.

deCampos:2002:CAA

Marcello L. R. de Campos, Stefan Werner, and José Antonio Apolinário, Jr. Constrained adaptation algorithms employing Householder transformation. *IEEE Transactions on Signal Processing*, 50(9):2187–2195, 2002. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1025582>.

deCampos:2003:EIM

M. L. R. de Campos, S. Werner, and J. A. Apolinario. On an efficient implementation of the multistage Wiener filter through Householder reflections for DS-CDMA interference suppression. In *GLOBECOM ’03. IEEE Global*

- Telecommunications Conference (IEEE Cat. No.03CH37489)*, volume 4, pages 2350–2354. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. ISBN 0-7803-7974-8. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1258655>.
- [DH34] Otto Dunkel and A. S. Householder. Problems and solutions: Advanced problems: 3622. *American Mathematical Monthly*, 41(6):400–401, June/July 1934. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).
- [DH35a] Otto Dunkel and A. S. Householder. Problems and solutions: Advanced problems: Solutions: 3664. *American Mathematical Monthly*, 42(5):331–334, 1935. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).
- [DH35b] Otto Dunkel and A. S. Householder. Problems and solutions: Solutions: 3664. *American Mathematical Monthly*, 42(5):331–334, May 1935. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).
- [DH55] A. C. Downing, Jr. and A. S. Householder. Some inverse characteristic value problems which arise in the study of simple molecules. Technical Report CF-55-10-95, Oak Ridge National Laboratory, Oak Ridge, TN, USA, October 20, 1955. iv + 9 pp. URL <https://www.osti.gov/biblio/4357461-some-inverse-characteristic-value-problems-which-arise-study-simple-molecules>.
- [DH56] A. C. Downing, Jr. and A. S. Householder. Some inverse characteristic value problems. *Journal of the ACM*, 3(3):203–207, July 1956. CODEN JACOA. ISSN 0004-5411 (print), 1557-735x (electronic).
- [DH59] Bruno Dejon and Peter Henrici, editors. *Constructive Aspects of the Fundamental Theorem of Algebra: proceedings of a symposium conducted at the IBM Research Laboratory, Zürich-Rüschlikon, Switzerland, June 5–7, 1967*. Wiley, New York, NY, USA, 1969. ISBN 0-471-20300-9. LCCN QA212 .C65.
- [DH74] Emeric Deutsch and A. S. Householder. Problems and solutions: Solutions of advanced problems: 5923. *American Mathematical Monthly*, 81(8):916, October 1974. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Demmel:2008:NND

- [DHHR08] James W. Demmel, Yozo Hida, Mark F. Hoemmen, and E. Jason Riedy. Non-negative diagonals and high performance on low-profile matrices from Householder QR . LA-PACK Working Note 203, Department of Electrical Engineering and Computer Science, University of California, Berkeley, Berkeley, CA, USA, May 30, 2008. URL <http://www.netlib.org/lapack/lawnspdf/lawn203.pdf>.

Demmel:2009:NDH

- [DHHR09] James W. Demmel, Mark Hoemmen, Yozo Hida, and E. Jason Riedy. Nonnegative diagonals and high performance on low-profile matrices from Householder QR . *SIAM Journal on Scientific Computing*, 31(4):2832–2841, 2009. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Deng:2009:URN

- [DHWZ09] Shuo Deng, Jianming Hu, Yin Wang, and Yi Zhang. Urban road network modeling and real-time prediction based on Householder transformation and adjacent vector. In *Advances in Neural Networks — ISNN 2009*, pages 899–908. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2009.

Djanybekov:2006:IHM

- [Dja06] Bakyt S. Djanybekov. Interval Householder method for complex linear systems. *Reliable Computing = Nadezhnye vychisleniia*, 12(1):35–43, February 2006. CODEN RCOMF8. ISSN 1385-3139 (print), 1573-1340 (electronic). URL <http://link.springer.com/article/10.1007/s11155-006-2968-5>; <http://link.springer.com/article/10.1007/s11155-006-2968-5>; <http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=12&issue=1&spage=35>; <http://www.springerlink.com/openurl.asp?genre=article&issn=1385-3139&volume=12&issue=1&spage=35-43>.

de la Rosa:2012:HM

- [dlRMP12] Kennett L. de la Rosa, Dennis I. Merino, and Agnes T. Paras. The J -Householder matrices. *Linear Algebra and its Applications*, 436(5):1189–1194, March 1, 2012. CODEN LAA-PAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0024379511005684>.

Douglas:2000:NRA

- [Dou00] S. C. Douglas. Numerically-robust adaptive subspace tracking using Householder transformations. In *Proceedings of the 2000 IEEE Sensor Array and Multichannel Signal*

- Processing Workshop. SAM 2000*, pages 499–503. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. ISBN 0-7803-6339-6. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=878059>. IEEE catalog no. 00EX410. [Dry92]
- Dominguez:2018:FBH**
- [DQ18] A. E. Tomás Dominguez and E. S. Quintana Orti. Fast blocking of Householder reflectors on graphics processors. In *2018 26th Euromicro International Conference on Parallel, Distributed and Network-based Processing (PDP)*, pages 385–393. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018. ISBN 1-5386-4975-6, 1-5386-4976-4. ISSN 2377-5750. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8374491>. [DS76]
- Drury:1999:OHR**
- [Dru99] S. W. Drury. OMC for Householder reflections. *Linear Algebra and its Applications*, 298(1–3):159–169, September 1, 1999. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL <http://www.elsevier.nl/gej-ng/10/30/19/105/17/27/abstract.html>; <http://www.elsevier.nl/gej-ng/10/30/19/105/17/27/article.pdf>.
- Drygas:1992:KAS**
- Hilmar Drygas. Die Konvergenzordnung des Algorithmus von Steffensen, Householder und Ostrowski. (German) [Convergence order of algorithm of Steffensen, Householder and Ostrowski]. In *Data analysis and statistical inference*, pages 523–529. Eul, Bergisch Gladbach, Germany, 1992.
- Decell:1976:OLC**
- Henry P. Decell, Jr. and W. G. Smiley III. Optimal linear combinations using Householder transformations. *Communications in Statistics: Theory and Methods*, 5(12):1153–1162, 1976. CODEN CST-MDC. ISSN 0361-0926 (print), 1532-415X (electronic). Special issue on remote sensing.
- Dong:2015:FBG**
- Tingzing Tim Dong, Stanimire Z. Tomov, Piotr R. Luszczyk, and Jack J. Dongarra. A framework for batched and GPU-resident factorization algorithms applied to block Householder transformations. Technical report, Oak Ridge National Laboratory, Oak Ridge, TN, USA, January 1, 2015. URL <https://www.osti.gov/biblio/1261481-framework-batched-gpu-resident-factorization-algorithms-applied-block-householder-transformations>. [DTLD15]

- [DTZ96] **Doallo:1996:SHQ**
 R. Doallo, J. Tourino, and E. L. Zapata. Sparse Householder QR factorization on a mesh. In *Proceedings of 4th Euromicro Workshop on Parallel and Distributed Processing*, pages 33–39. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. ISBN 0-8186-7376-1. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=500566>.
- [Dub88] **Dubrulle:1988:BHA**
 A. A. Dubrulle. On block Householder algorithms for the reduction of a matrix to Hessenberg form. In Martin and Lundstrom [ML88], pages 129–140. ISBN 0-8186-0882-X (v. 1; paper), 0-8186-8882-3 (v. 1; case), 0-8186-4882-1 (v. 1: microfiche) 0-8186-8923-4 (v. 2), 0-8186-5923-X (v. 2: microfiche), 0-8186-8923-4 (v. 2: case). LCCN QA76.5 .S894 1988. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=74140>. Two volumes. IEEE catalog number 88CH2617-9. IEEE Computer Society Order Number 882.
- [Dub00] **Dubrulle:2000:HTR**
 A. A. Dubrulle. Householder transformations revisited. *SIAM Journal on Matrix Analysis and Applications*, 22(1):33–40, 2000. CODEN SJMAEL. ISSN
- [Dur54] **Durfee:1954:RPP**
 W. H. Durfee. Recent publications: *Principles of Numerical Analysis*, by A. S. Householder. *American Mathematical Monthly*, 61(9):655–656, November 1954. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).
- [DV00] **Dieci:2000:OIB**
 Luca Dieci and Erik S. Van Vleck. Orthonormal integrators based on Householder and Givens transformations. *arxiv.org*, ??(??): 1–25, December 2, 2000. URL <https://arxiv.org/abs/math/0012007>.
- [DV03] **Dieci:2003:OIB**
 Luca Dieci and Erik S. Van Vleck. Orthonormal integrators based on Householder and Givens transformations. *Future Generation Computer Systems*, 19(3):363–373, April 2003. CODEN FGSEVI. ISSN 0167-739X (print), 1872-7115 (electronic).
- [DWA99] **Campos:1999:HTC**
 M. L. R. De Campos, S. Werner, and J. A. Apolinario. Householder-transform constrained LMS algorithms with reduced-rank updating. In *1999 IEEE International Conference on Acoustics*,

- Speech, and Signal Processing. Proceedings. ICASSP99 (Cat. No.99CH36258)*, volume 4, pages 1857–1860. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. ISBN 0-7803-5041-3. ISSN 1520-6149. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=758284>.
- [DZY18] Zhongliang Deng, Di Zhu, and Lu Yin. *N*-dimensional LLL reduction algorithm with pivoted reflection. *Sensors (Basel)*, 18(1):283–302, January 2018. CODEN SENS9. ISSN 1424-8220.
- [EG02] D. J. Evans and M. Gusev. Systolic SVD and *QR* decomposition by Householder reflections. *International Journal of Computer Mathematics*, 79(4):417–439, 2002. CODEN IJCMAT. ISSN 0020-7160.
- [EH15] Hewayda ElGhawalby and Edwin Hancock. Heat kernel embeddings, differential geometry and graph structure. *Axioms (Basel)*, 4(3):275–293, July 2015. ISSN 2075-1680.
- [EJ23] Alan Edelman and Sungwoo Jeong. Fifty three matrix factorizations: a systematic approach. *SIAM Journal on Matrix Analysis and Applications*, 44(2):415–480, 2023. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1416035>.
- [EVZP99] M. Elzinga, K. L. Virga, Li Zhao, and J. L. Prince. Pole-residue formulation for transient simulation of high-speed interconnects using Householder *LS* curve-fitting techniques. In *1999 Proceedings. 49th Electronic Components and Technology Conference (Cat. No.99CH36299)*, pages 500–505. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1999. ISBN 0-7803-5231-9. ISSN 0569-5503. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=776223>.
- [EVZP00] M. Elzinga, K. L. Virga, L. Zhao, and J. L. Prince. Pole-residue formulation for transient simulation of high-frequency interconnects using Householder *LS* curve-fitting techniques. *IEEE Transactions on Advanced Packaging*, 23(2):142–147, 2000. ISSN 1521-3323 (print), 1557-9980 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=846624>.

Elzinga:1999:PRF

Deng:2018:DLR

Evans:2002:SSD

ElGhawalby:2015:HKE

Edelman:2023:FTM

Elzinga:2000:PRF

- [EW90] **Evans:1990:SS**
 R. G. Evans and S. Wilson, editors. *Supercomputational Science*. Springer US, Boston, MA, USA, 1990. ISBN 0-306-43663-9, 1-4684-5820-5 (ebook). 349 pp. LCCN QA76.5 .S89437 1990.
- [FD87] **Fairman:1987:CBR**
 F. W. Fairman and J. A. De Abreu-García. Computing balanced realizations of transfer function matrices using Householder transformations. In *26th IEEE Conference on Decision and Control*, volume 26, pages 471–475. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1987. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4049311>.
- [FH59] **Fan:1959:NCP**
 Ky Fan and A. S. Householder. A note concerning positive matrices and M -matrices. *Monatshefte für Mathematik*, 63(3): 265–270, September 1959. CODEN MNMTA2. ISSN 0026-9255 (print), 1436-5081 (electronic).
- [Fie01] **Fierro:2001:LHT**
 Ricardo D. Fierro. Lanczos, Householder transformations, and implicit deflation for fast and reliable dominant singular subspace computation. *Numerical Linear Algebra with Applications*, 8(4): 245–264, June 2001. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).
- [Fit46] **Fitch:1946:BRM**
 Frederic B. Fitch. Book review: *Mathematical Biophysics of the Central Nervous System* by A. S. Householder, H. D. Landahl. *Journal of Symbolic Logic*, 11 (3):99, September 1946. CODEN JSYLA6. ISSN 0022-4812 (print), 1943-5886 (electronic). URL <http://www.jstor.org/stable/2266770>.
- [FIY15] **Fukaya:2015:PAH**
 Takeshi Fukaya, Toshiyuki Imamura, and Yusaku Yamamoto. Performance analysis of the Householder-type parallel Tall-Skinny QR factorizations toward automatic algorithm selection. In M. Daydé, O. Marques, and K. Nakajima, editors, *High Performance Computing for Computational Science — VECPAR 2014*, volume 8969 of *Lecture Notes in Computer Science*, pages 269–283. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2015.
- [FL99] **Fan:1999:MHT**
 Hongyi Fan and Liangshi Li. Mapping of Householder transformation in Euclidean space to rotation-reflection operator. *Commun. Theor. Phys. (Beijing)*, 31(3):477–480, 1999. ISSN 0253-6102 (print), 1572-9494 (electronic).

- [Fle55] **Fletcher:1955:BRP**
A. Fletcher. Book review: *Principles of Numerical Analysis*, by A. S. Householder. *Mathematical Gazette*, 39(330): 333–334, 1955. CODEN MAGAAS. ISSN 0025-5572 (print), 2056-6328 (electronic). URL <http://www.jstor.org/stable/3608608>.
- [For54] **Forsythe:1954:RHP**
George E. Forsythe. Review of Householder, *Principles of Numerical Analysis*. *Bulletin of the American Mathematical Society*, 60(5):488–491, 1954. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881X (electronic). URL <http://projecteuclid.org/euclid.bams/1183519065>.
- [Fra72] **Frankel:1972:BRB**
A. Frankel. Book review: *Bigradients* (Alston S. Householder). *SIAM Review*, 14(3): 495–496, 1972. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).
- [FWW06] **Feng:2006:GFT**
De-Jun Feng, Long Wang, and Yang Wang. Generation of finite tight frames by Householder transformations. *Advances in Computational Mathematics*, 24(1–4): 297–309, January 2006. CODEN ACMHEX. ISSN 1019-7168 (print), 1572-9044 (electronic). URL <http://link.springer.com/article/10.1007/s10444-004-7637-9>.
- [FYZ08] **Fukaya:2008:DPA**
T. Fukaya, Y. Yamamoto, and S. Zhang. A dynamic programming approach to optimizing the blocking strategy for the Householder *QR* decomposition. In *2008 IEEE International Conference on Cluster Computing*, pages 402–410. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008. ISBN 1-4244-2639-1, 1-4244-2640-5. ISSN 1552-5244 (print), 2168-9253 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4663801>.
- [GBCW89] **Gu:1989:CGC**
Chong Gu, Douglas M. Bates, Ze Hua Chen, and Grace Wahba. The computation of generalized cross-validation functions through Householder tridiagonalization with applications to the fitting of interaction spline models. *SIAM Journal on Matrix Analysis and Applications*, 10(4):457–480, 1989. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).
- [Ger84] **Gersch:1984:BAT**
W. Gersch. Bayesian analysis of time series I: Householder transformation analyses. Report UCID-20271, Lawrence Livermore National Laboratory, Livermore, CA,

- USA, November 1, 1984.
URL <https://www.osti.gov/biblio/6188630-bayesian-analysis-time-series-householder-transformation-analyses>.
- [GH46] **Garabedian:1946:TGT**
H. L. Garabedian and A. S. Householder. The two group theory of piles with multiple reflectors. Technical Report AECD-3585; MonP-202, Oak Ridge National Laboratory, Oak Ridge, TN, USA, November 11, 1946. URL <https://www.osti.gov/biblio/4421155-two-group-theory-piles-multiple-reflectors>. [GL87]
- [GH47] **Garabedian:1947:MGM**
H. L. Garabedian and A. S. Householder. Multi-group, multi-reflector pile theory. Technical Report MonP-246, Oak Ridge National Laboratory, Oak Ridge, TN, USA, February 12, 1947. URL <https://www.osti.gov/biblio/4370767-multi-group-multi-reflector-pile-theory>. [GL06]
- [GH66] **Gragg:1966:TK**
W. B. Gragg and A. S. Householder. On a theorem of Koenig. *Numerische Mathematik*, 8(5):465–468, August 1966. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic). [GLZ93]
- [GHL67] **Grau:1967:TA**
A. A. Grau, U. Hill, and H. Langmaack. *Translation of ALGOL 60*, volume 137 of *Handbook for Automatic Computation*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1967. ISBN 3-642-86937-8 (e-book), 3-642-86939-4 (print). ISSN 0072-7830 (print), 2196-9701 (electronic). ix + 403 pp. LCCN QA1-939. URL <http://www.springerlink.com/content/978-3-642-86937-2>.
- George:1987:HRV**
Alan George and Joseph W. H. Liu. Householder reflections versus Givens rotations in sparse orthogonal decomposition. *Linear Algebra and its Applications*, 88/89(??):223–238, 1987. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).
- Gajaweera:2006:SCT**
R. N. Gajaweera and L. F. Lind. Synthesis of canonical topology microwave filters using Householder’s transformations. *Electronics Letters*, 42(19):1101–1102, 2006. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911x (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1705804>.
- Gao:1993:HBT**
Li Qun Gao, Hui Mei Liu, and Si Ying Zhand. The Householder block transformation and linear composed systems. *Inform. and Con-*

- trol (Shenyang)*, 22(5):285–288, 1993. ISSN 1002-0411.
- [GMS⁺76] Larry J. Gerstein, H. Mochizuki, George P. H. Styan, D. Ž. Đoković, Alston Householder, Alan J. Hoffman, and C. J. Maxson. Book reviews. *Linear and Multilinear Algebra*, 3(4): 313–325, 1976. CODEN LNM-LAZ. ISSN 0308-1087 (print), 1563-5139 (electronic).
- [GN86] Alan George and Esmond Ng. Orthogonal reduction of sparse matrices to upper triangular form using Householder transformations. *SIAM Journal on Scientific and Statistical Computing*, 7(2): 460–472, April 1986. CODEN SIJCD4. ISSN 0196-5204 (print), 2168-3417 (electronic). URL <https://www.osti.gov/biblio/5480886-orthogonal-reduction-sparse-matrices-upper-triangular-form-using-householder-transformations>.
- [Goh54] Harry Goheen. Book review: *Principles of Numerical Analysis*, by A. S. Householder. *Econometrica*, 22(4): 540–541, October 1954. CODEN ECMTA7. ISSN 0012-9682. URL <https://www.jstor.org/stable/1907454>.
- [Gre72] T. N. E. Greville. Book review: *Bigradients* (Alston S. Householder). *SIAM Review*, 14(1):171–172, 1972. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).
- [Gu83] An Hai Gu. A discussion of the article: “Skew reflection matrix and the generalization of the Householder transformation” [Math. Numer. Sinica **3** (1981), no. 1, 66–71; MR0645691 (83b:65026)] by Ling Tan and the transformation function φ . *J. Northeast Inst. Tech.*, ??(3):15–20, 1983.
- [H.70] A. S. H. Book review: H. R. Schwarz, H. Rutishauser & E. Stiefel, *Numerik Symmetrischer Matrizen*, B. G. Teubner Verlag, Stuttgart, 1968, 243 pp., 22 cm. Price DM 34-. *Mathematics of Computation*, 24(109):229–230, January 1970. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL <https://www.jstor.org/stable/2004900>.
- [HA37] A. S. Householder and E. Amelotti. Some aspects of Rashevsky’s theorem of delayed reflexes. *Psychometrika*, 2(4):255–262, December 1937. CODEN PSMIA3. ISSN 0033-3123 (print), 1860-0980 (electronic).

- [HA71] **Householder:1971:BRS**
Alston S. Householder and Harry Appelgate. Book review: *Some Algebraic Identities* (Stan Kaplan). *SIAM Review*, 13(1): 132–136, January 1971. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).
- [HB12] **Hafiz:2012:MHI**
M. A. Hafiz and M. S. M. Bahgat. Modified of Householder iterative method for solving nonlinear systems. *Journal of Mathematical and Computational Science*, 2(5):1200–1208, 2012. ISSN 1927-5307. URL https://www.researchgate.net/publication/264833135_Modified_of_Householder_Iterative_Method_for_Solving_Nonlinear_Systems.
- [Hay66] **Haynsworth:1966:RPP**
E. V. Haynsworth. Recent publications and presentations: *The Theory of Matrices in Numerical Analysis*, by Alston S. Householder. *American Mathematical Monthly*, 73(10): 1142, December 1966. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).
- [HBC17] **Huang:2017:SFD**
G. Huang, J. Benesty, and J. Chen. Study of the frequency-domain multichannel noise reduction problem with the Householder transformation. In *2017 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 486–490. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017. ISBN 1-5090-4117-6, 1-5090-4116-8, 1-5090-4118-4. ISSN 1520-6149 (print), 2379-190X (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=7952203>.
- [HB59] **Householder:1959:CME**
Alston S. Householder and Friedrich L. Bauer. On certain methods for expanding the characteristic polynomial. *Numerische Mathematik*, 1:29–37, December 1959. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic).
- [HB60] **Householder:1960:CIM**
A. S. Householder and F. L. Bauer. On certain iterative methods for solving linear systems. *Numerische Mathematik*, 2(1):55–59, December 1960. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic). URL <https://www.osti.gov/biblio/4158095-certain-iterative-methods-solving-linear-systems>.
- [HC54] **Householder:1954:MDA**
A. S. Householder and H. P. Carter. Mathematics Division annual progress report for period ending December 31, 1964. Technical Report ORNL-3766, Oak Ridge National Laboratory, Oak Ridge,

- TN, USA, March 1, 1954. vi + 84 pp. URL <https://www.osti.gov/biblio/4611480-mathematics-division-annual-progress-report-period-ending-december>.
- [HC63] **Householder:1963:SVI**
A. S. Householder and John A. Carpenter. The singular values of involutory and of idempotent matrices. *Numerische Mathematik*, 5(1):234–237, December 1963. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic).
- [HC65] **Householder:1965:MDA**
A. S. Householder and H. P. Carter. Mathematics Division annual progress report for period ending December 31, 1964. Technical Report ORNL-3766, Oak Ridge National Laboratory, Oak Ridge, TN, USA, March 1, 1965. vi + 84 pp. URL <https://www.osti.gov/biblio/4611480>.
- [HCB15] **Huang:2015:DAE**
G. Huang, J. Chen, and J. Benesty. Direction-of-arrival estimation of passive acoustic sources in reverberant environments based on the Householder transformation. *Journal of the Acoustical Society of America*, 138(5):3053–3060, November 2015. CODEN JASMAN. ISSN 0001-4966.
- [HCX12] **Hang:2012:SGS**
H. Hang, G. Conghui, and Y. Xiaoyang. Study for generalized sidelobe canceller at subarray level based on Householder transformation. In *Proceedings of 2012 5th Global Symposium on Millimeter-Waves*, pages 63–66. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012. ISBN 1-4673-1305-X, 1-4673-1302-5, 1-4673-1304-1. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6314007>.
- [HD91] **Hsiao:1991:CHA**
Shen-Fu Hsiao and Jean-Marc Delosme. The CORDIC Householder algorithm. In Kernerup and Matula [KM91], pages 256–263. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. URL http://www.acsel-lab.com/arithmetric/arith10/papers/ARITH10_Hsiao.pdf; <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=145569>. IEEE catalog no. 91CH3015-5.
- [HD95] **Hsiao:1995:HCA**
Shen-Fu Hsiao and J.-M. Delosme. Householder CORDIC algorithms. *IEEE Transactions on Computers*, 44(8):990–1001, August 1995. CODEN ITCOB4. ISSN 0018-9340 (print), 1557-9956 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=403715>.

Haidar:2015:FBG

- [HDT⁺15] Azzam Haidar, Tingxing Tim Dong, Stanimire Tomov, Piotr Luszczek, and Jack Dongarra. A framework for batched and GPU-resident factorization algorithms applied to block Householder transformations. In *High Performance Computing. ISC High Performance 2015*, Lecture Notes in Computer Science, pages 31–47. Springer International Publishing, Cham, Switzerland, 2015.

He:2011:EMS

- [He11] Y. He. An efficient method to solve small sample size problem of LDA using Householder *QR* factorization for face recognition. In *2011 International Conference on Computational and Information Sciences*, pages 79–82. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2011. ISBN 1-4577-1540-6, 0-7695-4501-7. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6086138>.

Heck:1995:MHQ

- [Hec95] L. P. Heck. A multidimensional Householder *QR* algorithm for transducer placement in active noise control systems. In *Proceedings of 1995 Workshop on Applications of Signal Processing to Audio and Accoustics*, pages 57–60. IEEE Computer Society Press, 1109 Spring Street, Suite

300, Silver Spring, MD 20910, USA, 1995. ISBN 0-7803-3064-1. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=482947>.

Herrmann:1983:HVB

- [Her83] Dietmar Herrmann. Householder-Verfahren mit Bisektion. (German) [Householder method with bisection]. In *Numerische Mathematik — 40 BASIC-Programme*, chapter 31, pages 96–101. Vieweg + Teubner Verlag, Braunschweig, West Germany, 1983.

Hessenberg:1942:BEE

- [Hes42] Karl Hessenberg. *Die Berechnung der Eigenwerte und Eigenlösungen linearer Gleichungssysteme*. (German) [The computation of eigenvalues and eigensolutions of linear systems of equations]. Dissertation (Doktor-Ingenieur), Technische Hochschule Darmstadt, Darmstadt, Germany, February 11, 1942. 5 + 5 + 175 pp. URL <http://www.hessenberg.de/karl1.html>; http://www.hessenberg.de/Karl_Hessenberg_Dissertation.pdf.

Householder:1971:DES

- [HF71] A. S. Householder and Kenneth Fox. Determination of eigenvectors of symmetric idempotent matrices. *Journal of Computational Physics*, 8(2):292–294, October 1971. CODEN JCT-PAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL

<http://www.sciencedirect.com/science/article/pii/S002199917190009X>.

[HHW55]

Householder:1951:MCM

- [HFG51] Alston S. Householder, George E. Forsythe, and Hallett-Hunt Germond, editors. *Monte Carlo method. Proceedings of a Symposium Held June 29, 30 and July 1, 1949 in Los Angeles, California*, volume 12 of *Applied Mathematics Series / National Bureau of Standards*. United States Government Printing Office, Washington, DC, USA, 1951.

Householder:1943:KEI

- [HG43] Alston S. Householder and George Gomori. The kinetics of enzyme inactivation. *Bulletin of Mathematical Biophysics*, 5(3):83–90, September 1943. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478330>.

Hoffman:1994:YIV

- [HHOT94] A. J. Hoffman, A. S. Householder, A. M. Ostrowski, and O. Taussky Todd. 20 years index volume “*Linear Algebra and its Applications*”. *Linear Algebra and its Applications*, 200(??):1–83, ??? 1994. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Householder:1955:BRA

A. S. Householder, Cecil Hastings, and James P. Wong. Book review: *Approximations for Digital Computers* by Cecil Hastings Jr., Jeanne T. Hayward, James P. Wong Jr. *Science*, 122(3170):602, September 30, 1955. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/1750585>.

Householder:1944:MBC

[HL44]

Alston S. Householder and Herbert D. Landahl. *Mathematical Biophysics of the Central Nervous System*, volume 1 of *Mathematical Biophysics Monograph Series*. Principia Press, Inc., Bloomington, IN, USA, 1944. ix + 124 pp.

Hanson:1969:EAH

[HL69]

Richard J. Hanson and Charles L. Lawson. Extensions and applications of the Householder algorithm for solving linear least squares problems. *Mathematics of Computation*, 23(108):787–812, October 1969. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Higuchi:2018:ECC

[HMA18]

S. Higuchi, K. Maruta, and C. Ahn. Efficient channel column sorting method based on Householder transformation for QRM-MLD. In *2018 IEEE*

- Seventh International Conference on Communications and Electronics (ICCE)*, pages 151–154. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018. ISBN 1-5386-3679-4, 1-5386-3678-6, 1-5386-3677-8, 1-5386-3680-8. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8465727>. [Hou37a]
- [Hou26] Alston Scott Householder. Dr. A. N. Whitehead’s theory of space and time. Thesis (a.m.), Cornell University, Ithaca, NY, USA, 1926. 81 (est.) pp. [Hou37b] URL <https://newcatalog.library.cornell.edu/catalog/5714251>.
- [Hou35] A. S. Householder. Recent publications: Reviews: *Actualités Scientifiques et Industrielles*. No. 72, *Les Espaces Métriques Fondés sur la Notion d’Aire*. No. 79, *Les Espaces de Finsler*. No. 194, *La Methode du Repère Mobile, la Théorie des Groupes Continus, et les Espaces Généralisés*, by E. Cartan. *American Mathematical Monthly*, 42(9):562–563, November 1935. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). Part 1.
- [Hou36] A. S. Householder. The dependence of a focal point upon curvature in the calculus of variations. *Bulletin of the American Mathematical Society*, 42(??):818–819, 1936. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881X (electronic).
- [Hou37c] Alston S. Householder. *The Dependence of a Focal Point Upon Curvature in the Calculus of Variations*. Thesis (Ph.D.), Department of Mathematics, The University of Chicago, Chicago, IL, USA, June 1937. ii + 39 pp. URL <http://pi.lib.uchicago.edu/1001/cat/bib/4169262>; <https://search.proquest.com/docview/301787926>.
- [Hou37d] Alston S. Householder. The dependence of a focal point

Householder:1926:DWT

Householder:1937:EE

Householder:1937:QDN

Householder:1935:RPR

Householder:1937:DFPa

Householder:1936:DFP

Householder:1937:DFPb

- upon curvature in the calculus of variations. In *Contributions to the Calculus of Variations, Chicago, 1933–1937*, pages 485–526. University of Chicago Press, Chicago, IL, USA, 1937.
- [Hou38a] **Householder:1938:CC**
A. S. Householder. Conditioning circuits. *Psychometrika*, 3(4):273–289, December 1938. CODEN PSMIA3. ISSN 0033-3123 (print), 1860-0980 (electronic).
- [Hou38b] **Householder:1938:ECN**
A. S. Householder. Excitation of a chain of neurones. *Psychometrika*, 3(2):69–73, June 1938. CODEN PSMIA3. ISSN 0033-3123 (print), 1860-0980 (electronic).
- [Hou39a] **Householder:1939:CRT**
A. S. Householder. Concerning Rashevsky’s theory of the “Gestalt”. *Bulletin of Mathematical Biophysics*, 1(1):63–73, March 1939. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478013>.
- [Hou39b] **Householder:1939:NMD**
A. S. Householder. A neural mechanism for discrimination. *Psychometrika*, 4(1):45–58, March 1939. CODEN PSMIA3. ISSN 0033-3123 (print), 1860-0980 (electronic).
- [Hou39c] **Householder:1939:SMT**
A. S. Householder. Studies in the mathematical theory of excitation. *Bulletin of Mathematical Biophysics*, 1(3):129–141, September 1939. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478181>.
- [Hou40a] **Householder:1940:NMDa**
A. S. Householder. A neural mechanism for discrimination: II. Discrimination of weights. *Bulletin of Mathematical Biophysics*, 2(1):1–13, March 1940. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478027>.
- [Hou40b] **Householder:1940:RPD**
A. S. Householder. Recent publications: *A Detailed Proof of the Chi-Square Test of Goodness of Fit*, by E. R. Greenhood, Jr. *American Mathematical Monthly*, 47(9):648–649, November 1940. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).
- [Hou40c] **Householder:1940:RPR**
A. S. Householder. Recent publications: Reviews: A detailed proof of the chi-square test of goodness of fit. *American Mathematical Monthly*, 47(9):648–649, 1940. CODEN

AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Householder:1940:BRE

- [Hou40d] Alston S. Householder. Book review: *Elementary Theory of Equations* by William Vernon Lovitt. *National Mathematics Magazine*, 15(3):157–158, 1940. ISSN 1539-5588 (print), 2326-6708 (electronic). URL <http://www.jstor.org/stable/3028699?origin=pubexport>.

Householder:1940:BRI

- [Hou40e] Alston S. Householder. Book review: *Introduction to the Calculus* by Arnold Dresden. *National Mathematics Magazine*, 15(1):49–50, 1940. ISSN 1539-5588 (print), 2326-6708 (electronic). URL <http://www.jstor.org/stable/3028407?origin=pubexport>.

Householder:1940:NMDb

- [Hou40f] Alston S. Householder. A neural mechanism for discrimination III: Visually perceived lengths and distances. *Bulletin of Mathematical Biophysics*, 2(4):157–167, December 1940. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478267>.

Householder:1940:NH

- [Hou40g] Alston S. Householder. A note on the horopter. *Bulletin of Mathematical Biophysics*, 2(3):

135–140, September 1940. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478178>.

Householder:1941:BRA

- [Hou41a] Alston S. Householder. Book review: *Advances and Applications of Mathematical Biology* by Rashevsky, Nicolas. *National Mathematics Magazine*, 15(7):384–386, 1941. ISSN 1539-5588 (print), 2326-6708 (electronic). URL <http://www.jstor.org/stable/3028032?origin=pubexport>.

Householder:1941:MBC

- [Hou41b] Alston S. Householder. Mathematical biophysics of cellular forms and movements. *Bulletin of Mathematical Biophysics*, 3(1):27–38, March 1941. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478104>.

Householder:1941:TSSa

- [Hou41c] Alston S. Householder. A theory of steady-state activity in nerve-fiber networks: I. Definitions and preliminary lemmas. *Bulletin of Mathematical Biophysics*, 3(2):63–69, June 1941. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478220>.

- [Hou41d] **Householder:1941:TSSb**
Alston S. Householder. A theory of steady-state activity in nerve-fiber networks II: The simple circuit. *Bulletin of Mathematical Biophysics*, 3(3): 105–112, September 1941. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478168>.
- [Hou41e] **Householder:1941:TSSc**
Alston S. Householder. A theory of steady-state activity in nerve-fiber networks III: The simple circuit in complete activity. *Bulletin of Mathematical Biophysics*, 3(4):137–140, December 1941. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02477933>.
- [Hou42a] **Householder:1942:BRC**
A. S. Householder. Book review: *Calculus* by Alfred L. Nelson; Karl W. Folley; William M. Borgman. *National Mathematics Magazine*, 17(1):45, 1942. ISSN 1539-5588 (print), 2326-6708 (electronic). URL <http://www.jstor.org/stable/3028983?origin=pubexport>.
- [Hou42b] **Householder:1942:DNA**
A. S. Householder. Discussions and notes: The addition formulas in trigonometry. *American Mathematical Monthly*, 49(5):326–327, May 1942. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).
- [Hou42c] **Householder:1942:CFT**
Alston S. Householder. Cellular forms: The tri-axial cell. I. *Bulletin of Mathematical Biophysics*, 4(4):159–168, December 1942. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478111>.
- [Hou42d] **Householder:1942:TSS**
Alston S. Householder. A theory of steady-state activity in nerve-fiber networks: IV. N circuits with a common synapse. *Bulletin of Mathematical Biophysics*, 4(1):7–14, March 1942. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02477350>.
- [Hou43a] **Householder:1943:NAE**
Alston S. Householder. Note on anodal excitation. *Bulletin of Mathematical Biophysics*, 5(3): 91–94, September 1943. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478331>.

- [Hou43b] **Householder:1943:NRE**
Alston S. Householder. Note on Rashevsky's equation for cellular growth. *Bulletin of Mathematical Biophysics*, 5(4):161–163, December 1943. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478264>.
- [Hou43c] **Householder:1943:SSP**
Alston S. Householder. On synchronous sporulation with possible reference to malarial parasites. *Bulletin of Mathematical Biophysics*, 5(4):149–154, December 1943. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478262>.
- [Hou43d] **Householder:1943:TIS**
Alston S. Householder. A theory of the induced size effect. *Bulletin of Mathematical Biophysics*, 5(4):155–160, December 1943. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478263>.
- [Hou44a] **Householder:1944:BMR**
Alston S. Householder. *Biochemistry and morphogenesis*: [review of Joseph Needham 1942. xvi + 787 pp. Cambridge: At the University Press; New York: The Macmillan Company. \$12.50]. *Bulletin of Mathematical Biophysics*, 6(2):83–84, June 1944. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478487>.
- [Hou44b] **Householder:1944:ETN**
Alston S. Householder. Equivalence of the theories of nervous excitation of Hill, Monnier, and Rashevsky. *Bulletin of Mathematical Biophysics*, 6(2):79–81, June 1944. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478486>.
- [Hou44c] **Householder:1944:TFT**
Alston S. Householder. The two-factor theory of nervous excitation with non-normal accommodation. *Bulletin of Mathematical Biophysics*, 6(4):157–161, December 1944. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478433>.
- [Hou45a] **Householder:1945:DQL**
Alston S. Householder. Dynamics of quadrupedal locomotion. *Bulletin of Mathematical Biophysics*, 7(2):53–57, June 1945. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478433>.

springer.com/article/10.1007/BF02478453.

Householder:1945:MDM

- [Hou45b] Alston S. Householder. Muscular dynamics and muscular efficiency: I. The isometric length-tension diagram of striated skeletal muscle. *Bulletin of Mathematical Biophysics*, 7(1):5–13, March 1945. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478254>.

Householder:1946:MBC

- [Hou46] Alston S. Householder. Mathematical biophysics and the central nervous system. *Acta Biotheoretica*, 8(1–2):67–76, March 1946. CODEN ABIOAN. ISSN 0001-5342 (print), 1572-8358 (electronic).

Householder:1947:NSP

- [Hou47a] A. S. Householder. Neural structure in perception and response. *Psychological Review*, 54(3):169–176, May 1947. CODEN PSRVAX. ISSN 0033-295X (print), 1939-1471 (electronic).

Householder:1947:MAB

- [Hou47b] Alston S. Householder. *Mathematical analysis of binocular vision*: [review of Rudolf K. Luneburg 1947. vi + 104 pp. Princeton: Princeton University Press. (Published for the Dartmouth Eye Institute.)

\$2.50]. *Bulletin of Mathematical Biophysics*, 9(4):185–187, December 1947. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02478310>.

Householder:1949:NAC

- [Hou49a] A. S. Householder. Neutron age calculations in water, graphite, and tissue. Technical Report AECD-2633, Oak Ridge National Laboratory, Oak Ridge, TN, USA, October 31, 1949. URL <https://www.osti.gov/biblio/4413078-neutron-age-calculations-water-graphite-tissue>.

Householder:1949:BRM

- [Hou49b] Alston S. Householder. Book review: *Mathematical theory of human relations. An approach to a mathematical biology of social phenomena*. *Bulletin of the American Mathematical Society*, 55(7):722–724, 1949. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Householder:1950:PMF

- [Hou50a] A. S. Householder. On Prony's method of fitting exponential decay curves and multiple-hit survival curves. Technical Report ORNL-455, Oak Ridge National Laboratory, Oak Ridge, TN, USA, February 1, 1950. ??? pp. URL <https://www.osti>.

gov/biblio/4444525-prony-method-fitting-exponential-decay-curves-multiple-hit-survival-curves.

Householder:1950:SNM

- [Hou50b] A. S. Householder. Some numerical methods for solving systems of linear equations. *American Mathematical Monthly*, 57(7):453–459, August/September 1950. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Householder:1950:AED

- [Hou50c] Alston S. Householder. Analyzing exponential decay curves. In *Proceedings, Seminar on Scientific Computation, November, 1949*, pages 28–32. International Business Machines Corporation, New York, NY, USA, 1950.

Householder:1951:PSA

- [Hou51a] A. S. Householder. Book review: *Consciousness and Behavior. A Neural Analysis of Behavior and of Consciousness* by James T. Culbertson. *Journal of Symbolic Logic*, 16(4):286–287, 1951. CODEN JSYLA6. ISSN 0022-4812 (print), 1943-5886 (electronic). URL <http://www.jstor.org/stable/2267938>.

Householder:1951:PIR

- [Hou51b] Alston S. Householder. Polynomial iterations to roots of algebraic equations. *Proceedings of the American Mathematical Society*, 2(5):718–719,

October 1951. CODEN PAM-YAR. ISSN 0002-9939 (print), 1088-6826 (electronic).

Householder:1951:NNT

- [Hou51c] Alston Scott Householder. Neural nets for “Toad T1”. Research memorandum RM-671, RAND Corporation, Santa Monica, CA, USA, 1951. 9 pp. URL https://www.rand.org/pubs/research_memoranda/RM953.html.

Householder:1951:SNS

- [Hou51d] Alston Scott Householder. Some notes for simple Pavlovian learning. Research memorandum RM-678, RAND Corporation, Santa Monica, CA, USA, 1951. 7 pp. URL https://www.rand.org/pubs/research_memoranda/RM678.html.

Householder:1952:BR

- [Hou52] A. S. Householder. Book review. *Psychometrika*, 17(4):441–442, December 1952. CODEN PSMIA3. ISSN 0033-3123 (print), 1860-0980 (electronic).

Householder:1953:BRD

- [Hou53a] A. S. Householder. Book review: *Design for a Brain*, by W. Ross Ashby. *Journal of the American Statistical Association*, 48(263):669–671, September 1953. CODEN JSTNAL. ISSN 0162-1459 (print), 1537-274X (electronic). URL <http://www.jstor.org/stable/2281028>.

Householder:1953:EIS

- [Hou53b] A. S. Householder. Errors in iterative solutions of linear systems. In *Proceedings of the Association for Computing Machinery, Toronto, 1952*, pages 30–33. Sauls Lithograph Co. (for the Association for Computing Machinery), Washington, DC, USA, 1953.

Householder:1953:GSI

- [Hou53c] Alston S. Householder. The geometry of some iterative methods of solving linear systems. In *Simultaneous linear equations and the determination of eigenvalues*, volume 29 of *National Bureau of Standards Applied Mathematics Series*, pages 35–37. United States Government Printing Office, Washington, DC, USA, 1953.

Householder:1953:PNA

- [Hou53d] Alston S. Householder. *Principles of Numerical Analysis*. McGraw-Hill, New York, 1953. ISBN 0-486-61116-7. x + 274 pp. Reprinted by Dover, New York, 1974.

Householder:1954:NVM

- [Hou54a] A. S. Householder. On norms of vectors and matrices. Technical Report ORNL-1756, Oak Ridge National Laboratory, Oak Ridge, TN, USA, August 26, 1954. v + 18 pp. URL <https://www.osti.gov/biblio/4930763-norms-vectors-matrices>.

Householder:1954:SLA

- [Hou54b] A. S. Householder. On solving linear algebraic systems. Technical Report ORNL-1785, Oak Ridge National Laboratory, Oak Ridge, TN, USA, October 13, 1954. ii + 20 pp. URL <https://www.osti.gov/biblio/4359614-solving-linear-algebraic-systems>.

Householder:1954:GED

- [Hou54c] Alston S. Householder. Generation of errors in digital computation. *Bulletin of the American Mathematical Society*, 60:234–247, 1954. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Householder:1955:GED

- [Hou55a] A. S. Householder. The generation of error in digital computation. Technical Report ORNL-1983, Oak Ridge National Laboratory, Oak Ridge, TN, USA, October 11, 1955. iv + 79 pp. URL <https://www.osti.gov/biblio/4380237-generation-error-digital-computation>.

Householder:1955:MSO

- [Hou55b] A. S. Householder. Mathematics, the schools, and the ORACLE. *The Mathematics Teacher*, 48(5):299–304, 1955. ISSN 0025-5769 (print), 2330-0582 (electronic). URL <http://www.jstor.org/stable/27954898>.

Householder:1955:TNI

- [Hou55c] A. S. Householder. Terminating and nonterminating iterations for solving linear systems. *Journal of the Society for Industrial and Applied Mathematics*, 3(2):67–72, June 1955. CODEN JSIMAV. ISSN 0368-4245 (print), 1095-712X (electronic).

Householder:1955:BNB

- [Hou55d] Alston S. Householder. Bibliography on numerical analysis. Technical Report ORNL-1897, Oak Ridge National Laboratory, Oak Ridge, TN, USA, July 1, 1955. 32 pp. URL <https://www.osti.gov/biblio/4377745-bibliography-numerical-analysis>.

Householder:1955:BRD

- [Hou55e] Alston S. Householder. Book review: *Dictionary of Mathematical Sciences, English-German* by Leo Herland. *Science*, 121(3155):859, June 17, 1955. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/1682800>.

Householder:1955:BRT

- [Hou55f] Alston S. Householder. Book review: *Transform Calculus with an Introduction to Complex Variables* by E. J. Scott. *Science*, 122(3166):426, 1955. CODEN SCIEAS. ISSN 00368075, 10959203. URL <http://www.jstor.org/stable/1751587>.

Householder:1955:CMI

- [Hou55g] Alston S. Householder. On the convergence of matrix iterations. Technical Report ORNL-1883, Oak Ridge National Laboratory, Oak Ridge, TN, USA, May 18, 1955. 47 pp. URL <https://www.osti.gov/biblio/4389134-convergence-matrix-iterations>.

Householder:1956:BR

- [Hou56a] A. S. Householder. Book review. *Psychometrika*, 21(3):307–308, September 1956. CODEN PSMIA3. ISSN 0033-3123 (print), 1860-0980 (electronic).

Householder:1956:BRN

- [Hou56b] A. S. Householder. Book review: *Numerical Analysis. With Emphasis on the Application of Numerical Techniques to Problems of Infinitesimal Calculus in Single Variable* by Zdeněk Kopal. *Science*, 124(3216):324, August 17, 1956. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/1750487>.

Householder:1956:GESa

- [Hou56c] A. S. Householder. Generated error in the solution of certain partial difference equations. Technical Report ORNL-2230, Oak Ridge National Laboratory, Oak Ridge, TN, USA, December 12, 1956. v + 38 pp. URL <https://www.osti.gov/biblio/4359395->

generated-error-solution-certain-partial-difference-equations.

Householder:1956:MPSa

- [Hou56d] A. S. Householder. Mathematics Panel semiannual progress report for period ending December 31, 1955. Technical Report ORNL-2037, Oak Ridge National Laboratory, Oak Ridge, TN, USA, March 13, 1956. vi + 27 pp. URL <https://www.osti.gov/biblio/4379210-mathematics-panel-semiannual-progress-report-period-ending-december>. [Hou56h]

Householder:1956:MPSb

- [Hou56e] A. S. Householder. Mathematics Panel semiannual progress report for period ending June 30, 1956. Technical Report ORNL-2134, Oak Ridge National Laboratory, Oak Ridge, TN, USA, October 1, 1956. vii + 23 pp. URL <https://www.osti.gov/biblio/4344350-mathematics-panel-semiannual-progress-report-period-ending-june>. [Hou56j]

Householder:1956:PNA

- [Hou56f] A. S. Householder. *Principles of numerical analysis*. Izdat. Inostr. Lit., Moscow, USSR, 1956. 320 pp.

Householder:1956:SOR

- [Hou56g] A. S. Householder. Some observations on reactor criticality calculations. Technical Report CF-56-4-191, Oak

Ridge National Laboratory, Oak Ridge, TN, USA, April 24, 1956. URL <https://www.osti.gov/biblio/4370575-some-observations-reactor-criticality-calculations>.

Householder:1956:BNA

Alston S. Householder. Bibliography on numerical analysis. *Journal of the ACM*, 3(2):85–100, April 1956. CODEN JACOA. ISSN 0004-5411 (print), 1557-735x (electronic).

Householder:1956:GESb

Alston S. Householder. Generated error in the solution of certain linear difference equations. In ????, editor, *ACM'56: Proceedings of the 1956 11th ACM national meeting*, pages 52–55. ACM Press, New York, NY 10036, USA, 1956. URL https://dl.acm.org/ft_gateway.cfm?id=808947.

Householder:1956:CMI

Alston S. Householder. On the convergence of matrix iterations. *Journal of the ACM*, 3(4):314–324, October 1956. CODEN JACOA. ISSN 0004-5411 (print), 1557-735x (electronic).

Householder:1956:PAA

Alston S. Householder. Presidential Address to the ACM, Philadelphia, September 14, 1955. *Journal of the ACM*, 3(1):1–2, January 1956. CO-

- DEN JACOA. ISSN 0004-5411 (print), 1557-735X (electronic). [Hou57d]
- [Hou56l] Alston Scott Householder. Numerical mathematics from the viewpoint of electronic digital computers. *Elektronische Rechenmaschinen und Informationsverarbeitung*, ??(?): 21–25, ??? 1956.
- [Hou57a] A. S. Householder. Book review: *Matrix Calculus* by E. Bodewig. *Science*, 126(3270): 410, August 30, 1957. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/1752177>. [Hou58b]
- [Hou57b] A. S. Householder. Recent publications: *Numerical Analysis*, by John H. Curtiss. *American Mathematical Monthly*, 64(4):283–286, April 1957. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). [Hou58c]
- [Hou57c] Alston S. Householder. Retiring Presidential address. *Journal of the ACM*, 4(1):1–4, January 1957. CODEN JACOA. ISSN 0004-5411 (print), 1557-735X (electronic). [Hou58d]
- Householder:1956:NMV**
- Householder:1957:SSC**
- Alston S. Householder. A survey of some closed methods for inverting matrices. *Journal of the Society for Industrial and Applied Mathematics*, 5(3): 155–169, September 1957. CODEN JSIMAV. ISSN 0368-4245 (print), 1095-712X (electronic).
- Householder:1958:ASM**
- A. S. Householder. The approximate solution of matrix problems. *Journal of the ACM*, 5(3):205–243, July 1958. CODEN JACOA. ISSN 0004-5411 (print), 1557-735x (electronic).
- Householder:1958:MNN**
- A. S. Householder. On matrices with non-negative elements. *Monatshefte für Mathematik*, 62(3):238–242, September 1958. CODEN MNMTA2. ISSN 0026-9255 (print), 1436-5081 (electronic).
- Householder:1958:CMI**
- Alston S. Householder. A class of methods for inverting matrices. *Journal of the Society for Industrial and Applied Mathematics*, 6(2):189–195, June 1958. CODEN JSIMAV. ISSN 0368-4245 (print), 1095-712X (electronic).
- Householder:1958:GER**
- Alston S. Householder. Generated error in rotational tridiagonalization. *Journal of the*
- Householder:1957:BRM**
- Householder:1957:RPN**
- Householder:1957:RPA**

ACM, 5(4):335–338, October 1958. CODEN JACOA. ISSN 0004-5411 (print), 1557-735x (electronic). [Hou59c]

Householder:1958:UTN

[Hou58e] Alston S. Householder. Unitary triangularization of a nonsymmetric matrix. *Journal of the ACM*, 5(4):339–342, October 1958. CODEN JACOA. ISSN 0004-5411 (print), 1557-735x (electronic). URL <https://www.osti.gov/biblio/4291799-unitary-triangularization-nonsymmetric-matrix>. [Hou59d]

Householder:1959:BRP

[Hou59a] A. S. Householder. Book review: *Les Problèmes aux Limites de la Physique Mathématique. Introduction à leur étude générale* by H. G. Garnir. *Science*, 129 (3356):1136, April 24, 1959. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/1756795>. [Hou60a]

Householder:1959:MPP

[Hou59b] A. S. Householder. Mathematics Panel progress report for period March 1, 1957 to August 31, 1958. Technical Report ORNL-2652, Oak Ridge National Laboratory, Oak Ridge, TN, USA, March 24, 1959. URL <https://www.osti.gov/biblio/4292915-mathematics-panel-progress-report-period-march-august>. [Hou60b]

Householder:1959:DLG

Alston S. Householder. Dandelin, Lobačevskiĭ, or Graeffe? *American Mathematical Monthly*, 66(6):464–466, June/July 1959. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Householder:1959:MMN

Alston S. Householder. Minimal matrix norms. *Monatshefte für Mathematik*, 63(4):344–350, December 1959. CODEN MNMTA2. ISSN 0026-9255 (print), 1436-5081 (electronic).

Householder:1960:BRV

A. S. Householder. Book review: L. V. Kantorovich & V. I. Krylov, *Approximate Methods of Higher Analysis*, Translated from the third Russian edition by Curtis D. Benster, Interscience Publishers, Inc., New York, 1958, xv + 681 p., 24 cm. Price \$17.00. *Mathematics of Computation*, 14(69):90–91, January 1960. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL <http://www.ams.org/journals/mcom/1960-14-069/S0025-5718-60-99238-3>; <http://www.ams.org/journals/mcom/1960-14-069/S0025-5718-60-99238-3/S0025-5718-60-99238-3.pdf>.

Householder:1960:MI

A. S. Householder. Matrix inversion. In *International Dic-*

tionary of Applied Mathematics. Van Nostrand, Princeton, NJ, USA, 1960.

Householder:1961:BRK

- [Hou61a] A. S. Householder. Book review: A. Korganoff, with the collaboration of L. Bossett, J. L. Groboillot & J. Johnson, *Méthodes de Calcul Numérique, Tome I: Algèbre non linéaire*, Dunod, Paris, 1961, xxvii + 375 p., 25 cm. Price 58 NF. *Mathematics of Computation*, 15(75): 312–313, July 1961. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL <http://www.ams.org/journals/mcom/1961-15-075/S0025-5718-61-99215-8>; <http://www.ams.org/journals/mcom/1961-15-075/S0025-5718-61-99215-8/S0025-5718-61-99215-8.pdf>. [Hou63b]

Householder:1961:DM

- [Hou61b] A. S. Householder. On deflating matrices. *Journal of the Society for Industrial and Applied Mathematics*, 9(1):89–93, March 1961. CODEN JSIMAV. ISSN 0368-4245 (print), 1095-712X (electronic). URL <https://www.osti.gov/biblio/4088436-deflating-matrices>. [Hou63c]

Householder:1963:BRCa

- [Hou63a] A. S. Householder. Book review: Centre Belge de Recherches Mathématiques, *Colloque sur l'Analyse Numérique*, Gauthier-Villars, Paris, 1961,

214 p., 25 cm. *Mathematics of Computation*, 17(82): 209–210, April 1963. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL <http://www.ams.org/journals/mcom/1963-17-082/S0025-5718-63-99182-8>; <http://www.ams.org/journals/mcom/1963-17-082/S0025-5718-63-99182-8/S0025-5718-63-99182-8.pdf>.

Householder:1963:BRCb

A. S. Householder. Book review: Consciousness and Behavior, *The Mind of Robots. Sense data, memory images and behavior in conscious automata*. James T. Culbertson. University of Illinois Press, Urbana, 1963. xiv + 466 pp. Illus. \$10. *Science*, 141(3584):895, September 6, 1963. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://science.sciencemag.org/content/141/3584/895>; <https://www.jstor.org/stable/pdf/1712292.pdf>. See comment [Bla63].

Householder:1963:BRJ

A. S. Householder. Book review: John Todd, Editor, *A Survey of Numerical Analysis*, McGraw-Hill Book Co., 1962, 23.5 cm., xvi + 589 p. Price \$12.50. *Mathematics of Computation*, 17(81): 89, January 1963. CODEN MCMPAF. ISSN 0025-5718

- (print), 1088-6842 (electronic).
 URL <http://www.ams.org/journals/mcom/1963-17-081/S0025-5718-1963-1781088-8>; [http://www.ams.org/journals/mcom/1963-17-081/S0025-5718-1963-1781088-8.pdf](http://www.ams.org/journals/mcom/1963-17-081/S0025-5718-1963-1781088-8/S0025-5718-1963-1781088-8.pdf). [Hou64b]
- [Hou63d] A. S. Householder. Numerical analysis. In *Lectures on Modern Mathematics*, volume 1, pages 59–97. Wiley, New York, NY, USA, 1963.
- [Hou63e] Alston S. Householder. Symposium on matrix computations. In Cicely M. Poplewell, editor, *Information processing 1962: Proceedings of the IFIP Congress 62 [Munich, 27 August–1 September 1962]*, pages 198–206. North-Holland, Amsterdam, The Netherlands, 1963. LCCN TK7885.A1 I61 1962. URL <https://dblp.org/rec/bib/conf/ifip/Householder62>. [Hou64d]
- [Hou64a] A. S. Householder. Localization of the characteristic roots of matrices. In *Recent Advances in Matrix Theory (Proc. Advanced Seminar, Math. Res. Center, U.S. Army, Univ. Wisconsin, Madison, Wis., 1963)*, pages 39–60. University of Wisconsin Press, Madison, WI, USA, 1964. [Hou65]
- Householder:1964:NA**
- Alston Scott Householder. Numerical analysis. In Margenau and Murphy [MM64], chapter 2, pages 50–98. LCCN QA37 .M3818 1956.
- Householder:1964:PVV**
- Alston Scott Householder. Proper values and vectors: normalization and reduction of the matrix (methods of Krylov, Webber-Voetter, Danilevskii, Hessenberg, Lanczos, Samuelson and Bryan, Leverrier, etc.). In *The Theory of Matrices in Numerical Analysis* [Hou64d], chapter 6, page ?? ISBN 0-486-61781-5. LCCN QA188 .H67 1964; QA263 .H67. Reprinted in [Hou75c].
- Householder:1964:TMN**
- Alston Scott Householder. *The Theory of Matrices in Numerical Analysis*. Introductions to higher mathematics; A Blaisdell book in the pure and applied sciences. Blaisdell Pub. Co., Waltham, MA, USA, 1964. ISBN 0-486-61781-5. viii + 257 pp. LCCN QA188 .H67 1964; QA263 .H67. Reprinted in [Hou75c].
- Householder:1965:KSR**
- A. S. Householder. The Kantorovich and some related inequalities. *SIAM Review*, 7 (4):463–473, ??? 1965. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

- [Hou66] **Householder:1966:STN**
A. S. Householder. Separation theorems for normalizable matrices. *Numerische Mathematik*, 9(1):46–50, November 1966. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic).
- [Hou67] **Householder:1967:BRS**
A. S. Householder. Book review: *Solution of Equations and Systems of Equations* (A. M. Ostrowski). *SIAM Review*, 9(3):608–609, 1967. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).
- [Hou68a] **Householder:1968:BPR**
A. S. Householder. Bigradients and the problem of Routh and Hurwitz. *SIAM Review*, 10(1):56–66, January 1968. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). See erratum [Hou68b].
- [Hou68b] **Householder:1968:EBP**
A. S. Householder. Erratum: Bigradients and the problem of Routh and Hurwitz. *SIAM Review*, 10(4):438, October 1968. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). See [Hou68a].
- [Hou68c] **Householder:1968:MCR**
A. S. Householder. Moments and characteristic roots. II. *Numerische Mathematik*, 11(2):126–128, February 1968. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic).
- [Hou68d] **Householder:1968:NLR**
A. S. Householder. Norms and the localization of roots of matrices. *Bulletin of the American Mathematical Society*, 74:816–830, 1968. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).
- [Hou68e] **Householder:1968:SAT**
A. S. Householder. Some applications of the theory of norms. In *Programmation en Mathématiques Numériques (Actes Colloq. Internat. C.N.R.S. No. 165, Besançon, 1966)*, pages 27–36. Éditions Centre Nat. Recherche Sci., Paris, France, 1968.
- [Hou69] **Householder:1969:KIM**
A. S. Householder. KWIC index for matrices in numerical analysis. Volume I: Primary authors A–J. Technical Report ORNL-4418, Vol. I, Oak Ridge National Laboratory, Oak Ridge, TN, USA, January 1, 1969. viii + 125 pp. URL <https://www.osti.gov/biblio/4785678-kwic-index-matrices-numerical-analysis-volume-primary-authors>.
- [Hou70a] **Householder:1970:BEL**
A. S. Householder. Bezoutians, elimination and localization. *SIAM Review*, 12(1):73–78, January 1970. CO-

DEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Householder:1970:BRD

- [Hou70b] A. S. Householder. Book review: *A Determinant* (J. Prasad). *SIAM Review*, 12 (2):302–304, April 1970. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). [Hou70f]

Householder:1970:KIM

- [Hou70c] A. S. Householder. KWIC index for matrices in numerical analysis. Volume II: Primary authors K–Z. Technical Report ORNL-4418, Vol. II, Oak Ridge National Laboratory, Oak Ridge, TN, USA, January 1, 1970. vii + 151 pp. URL <https://www.osti.gov/biblio/4130263-kwic-index-matrices-numerical-analysis-volume-ii-primary-authors>. [Hou71a]

Householder:1970:KIN

- [Hou70d] A. S. Householder. KWIC index for the numerical treatment of nonlinear equations. Technical Report ORNL-4595, Oak Ridge National Laboratory, Oak Ridge, TN, USA, 1970. vii + 129 pp. URL <https://www.osti.gov/biblio/4087444-kwic-index-numerical-treatment-nonlinear-equations>. [Hou71b]

Householder:1970:NTS

- [Hou70e] A. S. Householder. *The Numerical Treatment of a Single Nonlinear Equation*. McGraw-Hill,

New York, 1970. viii + 216 pp. International Series in Pure and Applied Mathematics.

Householder:1970:PRA

Alston S. Householder. On the penultimate remainder algorithm and the catalytic multiplier. *SIAM Journal on Applied Mathematics*, 19(4):668–671, December 1970. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712x (electronic).

Householder:1970:GAS

A. S. Householder. Generalizations of an algorithm of Sebastião e Silva. *Numerische Mathematik*, 16:375–382, 1970/1971. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic).

Householder:1971:BRD

A. S. Householder. Book review: *A Determinant* (J. Prasad). *SIAM Review*, 13 (3):395, July 1971. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Householder:1971:GAS

A. S. Householder. Generalizations of an algorithm of Sebastião e Silva. *Numerische Mathematik*, 16(4):375–382, January 1971. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). See postscript [Hou73c].

- [Hou71d] **Householder:1971:MZT**
A. S. Householder. Multigradients and the zeros of transcendental functions. *Linear Algebra and its Applications*, 4(2):175–182, April 1971. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL <http://www.sciencedirect.com/science/article/pii/0024379571900383>.
- [Hou71e] **Householder:1971:PTF**
A. S. Householder. The Padé table, the Frobenius identities, and the *qd* algorithm. *Linear Algebra and its Applications*, 4(2):161–174, April 1971. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL <http://www.sciencedirect.com/science/article/pii/0024379571900371>.
- [Hou71f] **Householder:1971:B**
Alston S. Householder. Brigradients. *SIAM Review*, 13(1):114–115, January 1971. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).
- [Hou72a] **Householder:1972:KIN**
A. S. Householder. KWIC index for numerical algebra. Technical Report ORNL-4778, Oak Ridge National Laboratory, Oak Ridge, TN, USA, 1972. viii + 538 pp. URL <https://www.osti.gov/biblio/4645951-kwic-index-numerical-algebra>.
- [Hou72b] **Householder:1972:LNA**
A. S. Householder. *Lectures on Numerical Algebra*. Mathematical Association of America, Washington, DC, USA, 1972. iii + 250 + vii pp. LCCN QA155 .H67. Notes on lectures given at the June 19–July 28, 1972, MAA Summer Seminar, Williams College, Williamstown, MA, USA.
- [Hou72c] **Householder:1972:STH**
A. S. Householder. Schröder and Trude: a historical excursion. Reprint LA-DC-72-1121, Los Alamos Scientific Laboratory, Los Alamos, NM, USA, 1972. ??? pp.
- [Hou72d] **Householder:1972:CNM**
Alston S. Householder. On a condition for the nonsingularity of a matrix. *Mathematics of Computation*, 26(117):119–120, January 1972. CODEN MCM-PAF. ISSN 0025-5718 (print), 1088-6842 (electronic).
- [Hou73a] **Householder:1973:GFJ**
A. S. Householder. George E. Forsythe (January 8, 1917–April 9, 1972). *SIAM Journal on Numerical Analysis*, 10:viii–xi, 1973. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic). Collection of articles dedicated to the memory of George E. Forsythe.
- [Hou73b] **Householder:1973:KIN**
A. S. Householder. KWIC index for numerical algebra.

Technical Report ORNL-4778 (supplement 1), Oak Ridge National Laboratory, Oak Ridge, TN, USA, August 1, 1973. ??? pp. URL <https://www.osti.gov/biblio/4446292-kwic-index-numerical-algebra>. [Hou74d]

Householder:1973:PGA

[Hou73c] A. S. Householder. Postscript to: “Generalizations of an algorithm of Sebastião e Silva”. *Numerische Mathematik*, 20(3): 205–207, June 1973. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). See [Hou71c]. [Hou74e]

Householder:1974:BES

[Hou74a] A. S. Householder. Bigradients and the Euclid–Sturm algorithm. *SIAM Review*, 16(2): 207–213, ??? 1974. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). [Hou75a]

Householder:1974:G

[Hou74b] A. S. Householder. The Gatlinburgs. *SIAM Review*, 16(3): 340–343, ??? 1974. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). [Hou75b]

Householder:1974:STH

[Hou74c] A. S. Householder. Schröder and Trudi: a historical excursion. *SIAM Review*, 16(3): 344–348, ??? 1974. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Householder:1974:KHT

Alston S. Householder. The Koenig–Hadamard theorem again. In *Studies in numerical analysis (papers in honour of Cornelius Lanczos on the occasion of his 80th birthday)*, pages 235–240. Academic Press, New York, NY, USA, 1974.

Householder:1974:PNA

Alston S. Householder. *Principles of numerical analysis*. Dover, New York, NY, USA, 1974. x + 274 pp. Unabridged, corrected version of the 1953 edition.

Householder:1975:KIN

A. S. Householder. KWIC index for numerical algebra. Technical Report ORNL-4778 (revised), Oak Ridge National Laboratory, Oak Ridge, TN, USA, June 1, 1975. ??? pp. URL <https://www.osti.gov/biblio/5064523-kwic-index-numerical-algebra>.

Householder:1975:PVV

Alston Scott Householder. Proper values and vectors: normalization and reduction of the matrix (methods of Krylov, Webber-Voetter, Danilevskii, Hessenberg, Lanczos, Samuelson and Bryan, Leverrier, etc.). In *The Theory of Matrices in Numerical Analysis* [Hou75c], chapter 6, page ?? ISBN 0-486-61781-5. LCCN QA188 .H67 1975.

- [Hou75c] **Householder:1975:TMN**
Alston Scott Householder. *The Theory of Matrices in Numerical Analysis*. Dover, New York, NY, USA, 1975. ISBN 0-486-61781-5. xi + 257 pp. LCCN QA188 .H67 1975.
- [Hou79] **Householder:1979:BRH**
Alston S. Householder. Book review: *A History of Numerical Analysis from the 16th through the 19th Century* by Herman H. Goldstine. *Isis*, 70(3):450–451, September 1979. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL <http://www.jstor.org/stable/231391>.
- [Hou80] **Householder:1980:ROR**
A. S. Householder. Reminiscences of Oak Ridge. In Metropolis et al. [MHR80], pages 385–388. ISBN 0-12-491650-3, 1-4832-9668-7 (e-book). LCCN QA75.5 .I63 1976. URL <http://www.sciencedirect.com/science/article/pii/B9780124916500500265>.
Original versions of these papers were presented at the International Research Conference on the History of Computing, held at the Los Alamos Scientific Laboratory, 10–15 June 1976.
- [Hou06a] **Householder:2006:PNA**
Alston S. Householder. *Principles of Numerical Analysis*. Dover, New York, NY, USA, corrected edition, 2006. ISBN 0-486-45312-X. x + 274 pp.
- [Hou06b] **Householder:2006:PVV**
Alston Scott Householder. Proper values and vectors: normalization and reduction of the matrix (methods of Krylov, Webber–Voetter, Danilevskii, Hessenberg, Lanczos, Samuelson and Bryan, Leverrier, etc.). In *The Theory of Matrices in Numerical Analysis* [Hou06c], chapter 6, page ?? ISBN 0-486-44972-6 (paperback). LCCN QA188 .H67 2006. URL <http://www.loc.gov/catdir/enhancements/fy0634/2005054775-d.html>.
- [Hou06c] **Householder:2006:TMN**
Alston Scott Householder. *The Theory of Matrices in Numerical Analysis*. Dover, New York, NY, USA, 2006. ISBN 0-486-44972-6 (paperback). xi + 257 pp. LCCN QA188 .H67 2006. URL <http://www.loc.gov/catdir/enhancements/fy0634/2005054775-d.html>.
- [HP93] **Huang:1993:LEH**
Tetz C. Huang and Chin Tzong Pang. Lyapunov equation and Householder type inequalities. *Chinese J. Math.*, 21(2):125–127, 1993. ISSN 0379-7570.
- [HS58] **Householder:1958:NBN**
A. S. Householder and Joshua Stern. Names for binary numbers. *Science*, 128(3334):1246–1298, April 24, 1958. CO-

- DEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <http://www.jstor.org/stable/1754563>.
- [HS69a] **Householder:1969:CSI**
A. S. Householder and G. W. Stewart. Comments on: “*Some iterations for factoring a polynomial*”. *Numerische Mathematik*, 13(5):470–471, October 1969. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic).
- [HS69b] **Householder:1969:BHD**
A. S. Householder and G. W. Stewart III. Bigradients, Hankel determinants, and the Padé table. In Dejon and Henrici [DH69], pages 131–150. ISBN 0-471-20300-9. LCCN QA212.C65.
- [HS71] **Householder:1971:NFP**
A. S. Householder and G. W. Stewart. The numerical factorization of a polynomial. *SIAM Review*, 13(1):38–46, January 1971. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).
- [H.S73] **S:1973:AHA**
H.S. Alston S. Householder Award. *Numerische Mathematik*, 21(1):i, February 1973. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).
- [HVW70] **Householder:1970:NGI**
Alston S. Householder, Richard S. Varga, and James H. Wilkinson. A note on Gerschgorin’s inclusion theorem for eigenvalues of matrices. *Numerische Mathematik*, 16(2):141–144, November 1970. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic).
- [HW42] **Householder:1942:NDE**
Alston S. Householder and Robert R. Williamson. A note on the diffusion of electrolytes in cells. *Bulletin of Mathematical Biophysics*, 4(2):73–76, June 1942. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02477311>.
- [HW86] **Hindmarsh:1986:NHI**
A. C. Hindmarsh and H. F. Walker. Note on a Householder implementation of the GMRES method. Report UCID-20899, Lawrence Livermore National Laboratory, Livermore, CA, USA, October 1, 1986. URL <https://www.osti.gov/biblio/7008035-note-householder-implementation-gmres-method>.
- [HWG98] **Higham:1998:NAP**
D. J. (Desmond J.) Higham, G. A. Watson, and D. F. (David Francis) Griffiths, editors. *Numerical analysis 1997: proceedings of the 17th Dundee Biennial Conference, June 24–27, 1997*, volume 380 of *Pitman Research Notes in Mathe-*

- matics*. Longman Scientific and Technical, Harlow, Essex, UK, 1998. ISBN 0-582-31261-2 (paperback). ISSN 0269-3674. LCCN QA297 .D85 1997. [I.75]
- Householder:1938:MAL**
- [HY38] A. S. Householder and Gale Young. Matrix approximation and latent roots. *American Mathematical Monthly*, 45(3):165–171, March 1938. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).
- Householder:1940:WLW**
- [HY40] Alston S. Householder and Gale Young. Weber laws, the Weber law, and psychophysical analysis. *Psychometrika*, 5(3):183–193, September 1940. CODEN PSMIA3. ISSN 0033-3123 (print), 1860-0980 (electronic). [IADM⁺10]
- Huang:2010:ISM**
- [HZLW10] Q. Huang, L. Zhang, G. Lu, and C. Wang. Interference suppression method for space-time navigation receivers based on samples selection Householder multistage Wiener filter. In *IEEE 10th International Conference on Signal Processing: Proceedings*, pages 143–146. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010. ISBN 1-4244-5900-1, 1-4244-5897-8, 1-4244-5899-4. ISSN 2164-5221 (print), 2164-523X (electronic). URL [https://ieeexplore.](https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=5657039)
- I:1975:BRA**
- E. I. Book review: Alston S. Householder. *Principles of Numerical Analysis*, Dover, New York, 1974, x + 274 pp., 21 cm. Price \$4.00 (paperbound). *Mathematics of Computation*, 29(132):1152–1165, October 1975. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL <http://www.ams.org/journals/mcom/1975-29-132/S0025-5718-75-99674-X>; <http://www.ams.org/journals/mcom/1975-29-132/S0025-5718-75-99674-X/S0025-5718-75-99674-X.pdf>.
- Islam:2010:NFH**
- [IADM⁺10] K. M. Z. Islam, N. Al-Dhahir, R. McKown, R. Dawes, and C. Stillo. A new fast Householder-based fractionally-spaced FIR MMSE-DFE computation algorithm and its real-time implementation. *IEEE Communications Letters*, 14(11):1065–1067, 2010. CODEN ICLEF6. ISSN 1089-7798 (print), 1558-2558 (electronic). URL [https://ieeexplore.](https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=5598320)
- Ivanov:2006:EAT**
- [IKV06] P. A. Ivanov, E. S. Kyoseva, and N. V. Vitanov. Engineering of arbitrary $U(N)$ transformations by quantum Householder reflections. *Physical*

- Review A (Atomic, Molecular, and Optical Physics)*, 74 (2), August 2006. CODEN PLRAAN. ISSN 1050-2947 (print), 1094-1622, 1538-4446, 1538-4519. URL <https://www.osti.gov/biblio/20853040-engineering-arbitrary-transformations-quantum-householder-reflections>.
Ivanov:2007:EAT
- [IKV07] P. A. Ivanov, E. S. Kyoseva, and N. V. Vitanov. Engineering of arbitrary $U(N)$ transformations by quantum Householder reflections. *arxiv.org*, ??(??):??, August 21, 2007. URL <https://arxiv.org/abs/0708.2811>.
Irving:2011:BHR
- [Irv11] Geoffrey Irving. Banded Householder representation of linear subspaces. *arxiv.org*, ??(??):??, August 30, 2011. URL <https://arxiv.org/abs/1108.5822v1>.
Irving:2012:BHR
- [Irv12] G. Irving. Banded Householder representation of linear subspaces. *Linear Algebra and its Applications*, 436(9):3196–3200, May 1, 2012. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0024379511007294>.
Ivanov:2007:SAU
- [IV07] P. A. Ivanov and N. V. Vitanov. Synthesis of arbitrary unitary transformations in quantum systems by Householder reflections. In Simos and Maroulis [SM07], pages 832–835. ISBN 0-7354-0476-3 (set), 0-7354-0477-1 (vol. 1), 0-7354-0478-X (vol. 2). ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465. LCCN Q183.9 .I524 2007. URL <http://proceedings.aip.org/getpdf/servlet/GetPDFServlet?filetype=pdf&id=APCPCS00096300000200083200&idtype=cvips;https://www.osti.gov/biblio/21043547-synthesis-arbitrary-unitary-transformations-quantum-systems-householder-reflections>.
Ivanov:2008:SAU
- [IV08] Peter A. Ivanov and Nikolay V. Vitanov. Synthesis of arbitrary unitary transformations of collective states of trapped ions by quantum Householder reflections. *Physical Review A (Atomic, Molecular, and Optical Physics)*, 77(1):012335:1–012335:7, January 2008. CODEN PLRAAN. ISSN 1050-2947 (print), 1094-1622, 1538-4446, 1538-4519. URL <https://link.aps.org/doi/10.1103/PhysRevA.77.012335>.
Javed:2014:NCE
- [JA14] Shazia Javed and Noor Atinah Ahmad. Noise cancellation from ECG signals using Householder-RLS adaptive filter. In H. Mat Sakim and M. Mustaffa, editors, *Proceedings of the 8th International Conference on Robotic*,

- Vision, Signal Processing & Power Applications*, Lecture Notes in Electrical Engineering, pages 73–79. Springer, Singapore, 2014. [Kau87]
- Joffrain:2006:AHT**
- [JLQO⁺06] Thierry Joffrain, Tze Meng Low, Enrique S. Quintana-Ortí, Robert van de Geijn, and Field G. Van Zee. Accumulating Householder transformations, revisited. *ACM Transactions on Mathematical Software*, 32(2):169–179, June 2006. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). [KCN99]
- Jing:2008:VBD**
- [JZZ08] X. Jing, Z. Zhou, and T. Zhang. A V-BLAST detector based on modified Householder QRD over the spatially correlated fading channel. *IEICE Transactions on Communications*, E91-B(11):3727–3731, November 2008. CODEN ITCMEZ. ISSN 0916-8516 (print), 1745-1345 (electronic).
- Kaufman:1979:ADH** [KH54]
- [Kau79] L. Kaufman. Application of dense Householder transformation to a sparse matrix. *ACM Transactions on Mathematical Software*, 5(4):442–450, December 1979. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).
- Kaufman:1987:GHT**
- Linda Kaufman. The generalized Householder transformation and sparse matrices. *Linear Algebra and its Applications*, 90(??):221–234, May 1987. CODEN LAA-PAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL <http://www.sciencedirect.com/science/article/pii/0024379587903144>.
- Kontoghiorghes:1999:RLS**
- E. J. Kontoghiorghes, M. Clint, and H.-H. Naegeli. Recursive least-squares using a hybrid Householder algorithm on massively parallel SIMD systems. *Parallel Computing*, 25(9):1147–1159, September 1, 1999. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic). URL <http://www.elsevier.nl/gej-ng/10/35/21/32/25/21/abstract.html>; <http://www.elsevier.nl/gej-ng/10/35/21/32/25/21/article.pdf>.
- Kimball:1954:SMS**
- A. W. Kimball and A. S. Householder. A stochastic model for the selection of macronuclear units in parametrium growth. *Biometrics*, 10(3):361–374, September 1954. CODEN BIOMB6. ISSN 0006-341X (print), 1541-0420 (electronic). URL <https://www.jstor.org/stable/3001591>.

- [KI17] **Khanom:2017:PAQ**
S. Khanom and M. R. Islam. Performance analysis of QR -decomposition RLS and Householder sliding window RLS for noise elimination of EEG. In *2017 IEEE Region 10 Humanitarian Technology Conference (R10-HTC)*, pages 594–597. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017. ISBN 1-5386-2175-4, 1-5386-2174-6, 1-5386-2176-2. ISSN 2572-7621. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8289030>.
- [KKM⁺96] **Kajita:1996:DMO**
K. Kajita, H. Kobayashi, S. Muramatsu, A. Yamada, and H. Kiya. A design method for oversampled paraunitary DFT filter banks using Householder factorization. In *1996 8th European Signal Processing Conference (EUSIPCO 1996)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. ISBN 88-86179-83-9. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=7082857>.
- [KM91] **Kornerup:1991:PIS**
Peter Kornerup and David W. Matula, editors. *Proceedings: 10th IEEE Symposium on Computer Arithmetic: June 26–28, 1991, Grenoble, France*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. ISBN 0-8186-9151-4 (case), 0-8186-6151-8 (microfiche), 0-7803-0187-0 (library binding). LCCN QA76.9.C62 S95 1991. IEEE catalog no. 91CH3015-5.
- [Kor15] **Korayem:2015:BHB**
R. K. R. Korayem. B4. Householder based Bayesian beamformer. In *2015 32nd National Radio Science Conference (NRSC)*, pages 27–35. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015. ISBN 1-4799-7723-3, 1-4799-9945-8. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=7117811>.
- [KT77] **Kydes:1977:HMD**
A. S. Kydes and R. P. Tewarson. Householder modification for damped least squares solutions. *Journal of the Institute of Mathematics and its Applications*, 19(4):407–423, 1977. CODEN JMTAA8. ISSN 0020-2932.
- [KYP13] **Kurniawan:2013:MHB**
I. H. Kurniawan, J. Yoon, and J. Park. Multidimensional Householder based high-speed QR decomposition architecture for MIMO receivers. In *2013 IEEE International Symposium on Circuits and Systems (ISCAS2013)*, pages

- 2159–2162. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2013. ISBN 1-4673-5762-6, 1-4673-5760-X, 1-4673-5761-8. ISSN 0271-4302 (print), 2158-1525 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6572302>. [LC91]
- Kielbasinski:1976:NAS**
- [KZ76] Andrzej Kielbański and Krystyna Ziętak. Numerical analysis of standard problems with a unitary Householder transformation. *Mat. Stos. (111)*, 8:67–80, 1976. ISSN 0137-2890.
- Li:2013:NCI**
- [LA13] Xi-Lin Li and Tülay Adalı. [LH39] Noncircular complex ICA by generalized Householder reflections. *IEEE Transactions on Signal Processing*, 61(24):6423–6430, 2013. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6636089>. [LHY90]
- Liu:1990:CTV**
- [LBM90] Xiaoyu Liu, K. Balasubramanian, and M. E. Munk. Computational techniques for vertex partitioning of graphs. *Journal of Chemical Information and Computer Sciences*, 30(3):263–269, 1990. CODEN JCISD8. ISSN 0095-2338 (print), 1520-5142 (electronic). URL <https://pubs.acs.org/doi/abs/10.1021/ci00067a009>. PMID: 2211886.
- Leung:1991:HED**
- C. S. Leung and K. F. Cheung. Householder encoding for discrete bidirectional associative memory. In *[Proceedings] 1991 IEEE International Joint Conference on Neural Networks*, volume 1, pages 237–241. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. ISBN 0-7803-0227-3. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=170410>.
- Landahl:1939:NCS**
- H. D. Landahl and A. S. Householder. Neuron circuits: The self-exciting neuron. *Psychometrika*, 4(4):255–276, December 1939. CODEN PSMIA3. ISSN 0033-3123 (print), 1860-0980 (electronic).
- Liu:1990:RLF**
- K. J. R. Liu, S. F. Hsieh, and K. Yao. Recursive LS filtering using block Householder transformations. In *International Conference on Acoustics, Speech, and Signal Processing*, volume 3, pages 1631–1634. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. ISSN 1520-6149. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=115739>.

- [LHY92] **Liu:1992:SBH** K. R. Liu, S. Hsieh, and K. Yao. Systolic block Householder transformation for RLS algorithm with two-level pipelined implementation. *IEEE Transactions on Signal Processing*, 40(4):946–958, 1992. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=127965>.
- [Liu93] **Liu:1993:LPI** Z. Liu. On-line parameter identification algorithms based on Householder transformation. *IEEE Transactions on Signal Processing*, 41(9):2863–2871, 1993. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=236508>.
- [LL97a] **Longley:1997:AGS** James W. Longley and Roger D. Longley. Accuracy of Gram-Schmidt orthogonalization and Householder transformation for the solution of linear least squares problems. *Numerical Linear Algebra with Applications*, 4(4):295–303, July/August 1997. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic). URL <http://www3.interscience.wiley.com/cgi-bin/abstract?ID=15036>; <http://www3.interscience.wiley.com/cgi-bin/fulltext?ID=15036&PLACEBO=IE.pdf>.
- [LL97b] **Lu:1997:PAH** Mi Lu and Kunlin Liu. Parallel algorithm for Householder transformation with applications to ill-conditioned problems. *International Journal of Computer Mathematics*, 64(1-2):89–101, 1997. CODEN IJCMAT. ISSN 0020-7160.
- [LMM96] **Leoncini:1996:PCH** Mauro Leoncini, Giovanni Manzini, and Luciano Margara. Parallel complexity of Householder QR factorization. *Lecture Notes in Computer Science*, 1136:290–301, 1996. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).
- [LMV18] **Laudadio:2018:GSA** Teresa Laudadio, Nicola Mastronardi, and Paul Van Dooren. The generalized Schur algorithm and some applications. *Axioms (Basel)*, 7(4):81, November 2018. ISSN 2075-1680.
- [LS09] **Liu:2009:APH** Fangbin Liu and Frank J. Seinstra. Adaptive parallel Householder bidiagonalization. In *European Conference on Parallel Processing: Euro-Par 2009: Euro-Par 2009 Parallel Processing*, volume 5704 of *Lecture Notes in Computer Science*, pages 821–833. Springer-

Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2009.

Lopes:2013:TVD

- [LSA13] D. S. Lopes, M. T. Silva, and J. A. Ambrósio. Tangent vectors to a 3-D surface normal: a geometric tool to find orthogonal vectors based on the Householder transformation. *Computer-Aided Design*, 45(3):683–694, 2013. CODEN CAIDA5. ISSN 0010-4485 (print), 1879-2685 (electronic).

Luo:2000:PAH

- [Luo00] Xiaoqiang Luo. Parser adaptation via Householder transform. In *2000 IEEE International Conference on Acoustics, Speech, and Signal Processing. Proceedings (Cat. No.00CH37100)*, volume 2, pages II:1225–II:1228. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000. ISBN 0-7803-6293-4. ISSN 1520-6149. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=859187>.

Liu:1990:RHT

- [LWZ90] Zheng She Liu, Chuan Yuan Wen, and Ming Lian Zhang. A recursive Householder transformation formula for converting matrices to upper triangular form, and its applications. *Acta Automat. Sinica*, 16(2):142–145, 1990. ISSN 0254-4156.

[LWZZ16]

Li:2016:RSP

Ying Li, Musheng Wei, Fengxia Zhang, and Jianli Zhao. Real structure-preserving algorithms of Householder based transformations for quaternion matrices. *Journal of Computational and Applied Mathematics*, 305(??):82–91, October 15, 2016. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0377042716301583>.

Lin:2009:NOF

[LXYW09]

X. Lin, L. XiuGuo, L. Yongsheng, and G. Wei. A new orbit fitting algorithm of space-borne SAR based on Householder transformation. In *2009 2nd Asian-Pacific Conference on Synthetic Aperture Radar*, pages 832–835. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009. ISBN 1-4244-2731-2, 1-4244-2732-0. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=5374184>.

Liu:1990:TLP

[LY90]

K. J. R. Liu and K. Yao. Two-level pipelined implementation of systolic block Householder transformation with application to RLS algorithm. In *[1990] Proceedings of the International Conference on Application Specific Array Pro-*

- cessors, pages 758–769. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1990. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=145510>.
- [LZ12] J. Liu and J. Zhang. A new maximum simplex volume method based on Householder transformation for end-member extraction. *IEEE Transactions on Geoscience and Remote Sensing*, 50(1): 104–118, 2012. CODEN IGRSD2. ISSN 0196-2892 (print), 1558-0644 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=5944969>.
- [Ma97] Sangback Ma. Linear least squares solutions by Householder transformations with column pivoting on a parallel machine. In *Proceedings High Performance Computing on the Information Superhighway. HPC Asia '97*, pages 134–136. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. ISBN 0-8186-7901-8. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=592136>.
- [May09] John P. May, editor. *Proceedings of the 2009 international symposium on Symbolic and algebraic computation, KIAS, Seoul, Korea, July 28–31, 2009*. ACM Press, New York, NY 10036, USA, 2009. ISBN 1-60558-609-9.
- [MB84] J. Modi and G. Bowgen. Implementation of QR factorization on the DAP using Householder transformations. Technical Report CUED/F-CAMS/TR.241, Cambridge University Engineering Department, Cambridge, UK, 1984.
- [MB96] Cleve Moler and Friedrich L. Bauer. Bauer remembers Householder and the Gatlinburg meetings. *NA Digest*, 96(27), July 18, 1996. URL <http://www.maths.manchester.ac.uk/~higham/conferences/householder/h96/bauertalk.pdf>; <http://www.netlib.org/na-digest-html/96/v96n27.html>; http://www3.math.tu-berlin.de/householder_2008/Cleve.htm. The article contains notes for F. L. Bauer’s after-banquet talk entitled *Memories of Alston Householder (1904–1993)*, Householder Symposium XIII, June 17–21, 1996 Pontresina, Switzerland.
- [ME06] R. McIlhenny and M. D. Ercegovac. On the design of an on-line complex Householder transform. In *2006 Fortieth Asilomar Conference on*

- Signals, Systems and Computers*, pages 318–322. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2006. ISBN 1-4244-0784-2, 1-4244-0785-0. ISSN 1058-6393. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4176569>. [ML88]
- [Mer70] Richard R. Mertz. Interview with Alston Scott Householder, July 20, 1970. URL http://amhistory.si.edu/archives/AC0196_hous700720.pdf; <https://dl.acm.org/citation.cfm?id=1234040>. 1234087.
- [MHR80] Nicholas Metropolis, Jack Howlett, and Gian-Carlo Rota, editors. *A History of Computing in the Twentieth Century: a Collection of Essays*. Academic Press, New York, NY, USA, 1980. ISBN 0-12-491650-3, 1-4832-9668-7 (e-book). LCCN QA75.5 .I63 1976. Original versions of these papers were presented at the International Research Conference on the History of Computing, held at the Los Alamos Scientific Laboratory, 10–15 June 1976.
- [MHRB16] Zakaria Mhammedi, Andrew Hellicar, Ashfaur Rahman, and James Bailey. Efficient orthogonal parametrisation of recurrent neural networks using Householder reflections. *arxiv.org*, ??(??):1–12, December 1, 2016. URL <https://arxiv.org/abs/1612.00188>.
- Martin:1988:SPN**
- Joanne L. Martin and Stephen F. Lundstrom, editors. *Supercomputing '88: proceedings, November 14–18, 1988, Orlando, Florida*, volume 2. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1988. ISBN 0-8186-0882-X (v. 1; paper), 0-8186-8882-3 (v. 1; case), 0-8186-4882-1 (v. 1: microfiche) 0-8186-8923-4 (v. 2), 0-8186-5923-X (v. 2: microfiche), 0-8186-8923-4 (v. 2: case). LCCN QA76.5 .S894 1988. Two volumes. IEEE catalog number 88CH2617-9. IEEE Computer Society Order Number 882.
- Margenau:1964:MPC**
- Henry Margenau and George Moseley Murphy, editors. *The Mathematics of Physics and Chemistry*, volume 2. D. Van Nostrand, Princeton, NJ, USA, 1964. v + 786 pp. LCCN QA37 .M3818 1956.
- Murthy:1994:TSEa**
- K. N. Balasubramanya Murthy and C. Siva Ram Murthy. Two-sided elimination algorithm for parallel solution of linear equations using Householder reductions. In Balakrishnan et al. [BRSS94], pages 381–382. ISBN 0-07-462044-4.
- Mertz:1970:IAS**
- Metropolis:1980:HCT**
- Mhammedi:2016:EOP**

- [MM94b] **Murthy:1994:TSEb**
K. N. Balasubramanya Murthy and C. Siva Ram Murthy. Two-sided elimination algorithm for parallel solution of linear equations using Householder reductions. *Parallel Algorithms and Applications*, 3(3-4):287-309, 1994. CODEN PAAPEC. ISSN 1063-7192. URL <http://www.informaworld.com/smpp/content~1/content=a779167063>.
- [MMT04] **Mackey:2004:RAH**
D. Steven Mackey, Niloufer Mackey, and Françoise Tisseur. **G**-reflectors: analogues of Householder transformations in scalar product spaces. *Linear Algebra and its Applications*, 385(1):187-213, July 1, 2004. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).
- [MNS08] **Matinfar:2008:SFL**
M. Matinfar, S. H. Nasseri, and M. Sohrabi. Solving fuzzy linear system of equations by using Householder decomposition method. *Applied Mathematical Sciences (Ruse)*, 2(49-52):2569-2575, 2008. ISSN 1312-885x (print), 1314-7552 (electronic).
- [MOHvdG15] **Martinsson:2015:HFR**
Per-Gunnar Martinsson, Gregorio Quintana Ortí, Nathan Heavner, and Robert van de Geijn. Householder *QR* factorization with randomization for column pivoting (HQRRP). *arxiv.org*, ??(??):??, December 8, 2015. URL <https://arxiv.org/abs/1512.02671>. FLAME Working Note #78.
- [MOHvdG17] **Martinsson:2017:HFR**
Per-Gunnar Martinsson, Gregorio Quintana Ortí, Nathan Heavner, and Robert van de Geijn. Householder *QR* factorization with randomization for column pivoting (HQRRP). *SIAM Journal on Scientific Computing*, 39(2):C96-C115, 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [Mol13] **Moler:2013:CCG**
Cleve B. Moler. Cleve's corner: The Gatlinburg and Householder symposia. Technical note, The MathWorks, Inc., 3 Apple Hill Drive, Natick, MA 01760-2098, USA, ?? 2013. ?? pp. URL <https://www.mathworks.com/company/newsletters/articles/the-gatlinburg-and-householder-symposia.html>.
- [MPT12] **Merino:2012:HM**
Dennis I. Merino, Agnes T. Paras, and Terrence Erard D. Teh. The Λ_S -Householder matrices. *Linear Algebra and its Applications*, 436(7):2653-2664, April 1, 2012. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL <http://www.sciencedirect>.

- com/science/article/pii/S002437951100694X.
- Martin:1968:HTS**
- [MRW68] R. S. Martin, C. Reinsch, and J. H. Wilkinson. Householder's tridiagonalization of a symmetric matrix. *Numerische Mathematik*, 11(3):181–195, March 1968. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). Also in [WR71, pp. 212–226].
- Martin:1971:HTS**
- [MRW71] R. S. Martin, C. H. Reinsch, and J. H. Wilkinson. Householder's tridiagonalization of a symmetric matrix. In Wilkinson and Reinsch [WR71], chapter 13, pages 212–226. ISBN 0-387-05414-6, 3-540-05414-6. LCCN QA251 .W67.
- Majchrowska:1976:NAO**
- [MS76] Jana Majchrowska and Alicja Smoktunowicz. Numerical analysis of the Ortega–Householder algorithm in the complex domain. *Mat. Stos. (111)*, 8:55–66, 1976. ISSN 0137-2890.
- Moler:1978:HFA**
- [MS78] Cleve B. Moler and G. W. Stewart. On the Householder–Fox algorithm for decomposing a projection. *Journal of Computational Physics*, 28(1):82–91, July 1978. CODEN JCT-PAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0021999178900487>.
- Meleshko:1981:SMP**
- [MSF81] V. I. Meleshko, O. V. Serebryakova, and Vu Kuok Fong. A stable method for pseudoinversion using the Householder transform. *Dokl. Akad. Nauk Ukrain. SSR Ser. A*, ??(7):68–70, 1981. ISSN 0201-8446.
- Morel:2009:HLU**
- [MSV09] Ivan Morel, Damien Stehlé, and Gilles Villard. H-LLL: using Householder inside LLL. In May [May09], pages 271–278. ISBN 1-60558-609-9.
- Mueller:1966:FSH**
- [Mue66a] Dennis J. Mueller. FORTRAN subroutines for Householder's method in the complex case and eigensystems of Hermitian matrices. Technical Report ANL-7231, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, IL 60439-4801, USA, 1966. 31 pp.
- Mueller:1966:HMC**
- [Mue66b] Dennis J. Mueller. Householder's method for complex matrices and eigensystems of Hermitian matrices. *Numerische Mathematik*, 8(1):72–92, March 1966. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).
- Merchant:2016:AEQ**
- [MVC⁺16a] F. Merchant, T. Vatswani, A. Chattopadhyay, S. Raha,

- S. K. Nandy, and R. Narayan. Achieving efficient QR factorization by algorithm–architecture co-design of Householder transformation. In *2016 29th International Conference on VLSI Design and 2016 15th International Conference on Embedded Systems (VLSID)*, pages 98–103. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016. ISBN 1-4673-8700-2. ISSN 2380-6923. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=7434934>. **Merchant:2016:ERH**
- [MVC⁺16b] Farhad Merchant, Tarun Vatsani, Anupam Chattopadhyay, Soumyendu Raha, S. K. Nandy, and Ranjani Narayan. Efficient realization of Householder transform through algorithm–architecture co-design for acceleration of QR factorization. *arxiv.org*, ??(??):??, December 14, 2016. URL <https://arxiv.org/abs/1612.04470>. **Merchant:2018:ERH**
- [MVC⁺18] Farhad Merchant, Tarun Vatsani, Anupam Chattopadhyay, Soumyendu Raha, S. K. Nandy, and Ranjani Narayan. Efficient realization of Householder transform through algorithm–architecture co-design for acceleration of QR factorization. *IEEE Transactions on Parallel and Distributed Systems*, 29(8): 1707–1720, August 2018. CODEN ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8283815>; <https://www.computer.org/csdl/trans/td/2018/08/08283815-abs.html>. **Mori:2012:BEA**
- [MYZ12] Daisuke Mori, Yusaku Yamamoto, and Shao-Liang Zhang. Backward error analysis of the AllReduce algorithm for Householder QR decomposition. *Japan Journal of Industrial and Applied Mathematics*, 29(1):111–130, February 2012. ISSN 0916-7005 (print), 1868-937X (electronic). **Nash:1990:HSC**
- [Nas90] Stephen G. Nash, editor. *A History of Scientific Computing*. ACM Press history series. Addison-Wesley and ACM Press, Addison-Wesley and New York, NY 10036, USA, 1990. ISBN 0-201-50814-1. xix + 359 pp. LCCN QA76.17 .H59 1990. **Nelson:1954:BRP**
- [Nel54] E. C. Nelson. Book review: *Principles of Numerical Analysis*. Alston S. Householder. McGraw-Hill, New York-London, 1953. 274 pp. \$6. *Science*, 119(3095):547–548, April 23, 1954. CODEN SCIEAS. ISSN 0036-8075 (print), 1095-9203 (electronic). URL <https://www.jstor.org/stable/pdf/1683165.pdf>.

- [New65] **Newman:1965:PBM**
D. J. Newman. Problem 63-2: On bounds for matrix eigenvalues. *SIAM Review*, 7(1):138, 1965. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). Includes solutions by A. S. Householder, Marvin D. Marcus, J. H. Van Lint, and others.
- [NG07] **Noor:2007:MHIb**
Muhammad Aslam Noor and Vijay Gupta. Modified Householder iterative method free from second derivatives for nonlinear equations. *Applied Mathematics and Computation*, 190(2):1701–1706, July 15, 2007. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0096300307002159>.
- [NH66] **Newman:1966:PSS**
D. J. Newman and A. S. Householder. Problems and solutions: Solutions of advanced problems: 5281. *American Mathematical Monthly*, 73(4):422–423, April 1966. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL [http://links.jstor.org/sici?sici=0002-9890\(196604\)73:4<422:5>2.O.CO;2-Q&origin=MSN](http://links.jstor.org/sici?sici=0002-9890(196604)73:4<422:5>2.O.CO;2-Q&origin=MSN).
- [NLJ13a] **Noble:2013:GHTa**
J. H. Noble, M. Lubasch, and U. D. Jentschura. Generalized Householder transformations for the complex symmetric eigenvalue problem. *arxiv.org*, 1301.5758, January 24, 2013. URL <https://arxiv.org/abs/1301.5758>.
- [NLJ13b] **Noble:2013:GHTb**
J. H. Noble, M. Lubasch, and U. D. Jentschura. Generalized Householder transformations for the complex symmetric eigenvalue problem. *The European Physical Journal Plus*, 128(8):128:93–128:??, August 2013. CODEN EPJPA3. ISSN 2190-5444.
- [NLSJ17] **Noble:2017:DCS**
J. H. Noble, M. Lubasch, J. Stevens, and U. D. Jentschura. Diagonalization of complex symmetric matrices: Generalized Householder reflections, iterative deflation and implicit shifts. *Computer Physics Communications*, 221(??):304–316, December 2017. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0010465517301960>.
- [NNM07] **Noor:2007:MHIa**
Khalida Inayat Noor, Muhammad Aslam Noor, and Shaher Momani. Modified Householder iterative method for nonlinear equations. *Applied Mathematics and Computation*, 190(2):1534–1539, July 15, 2007. CODEN AMHCBQ.

- ISSN 0096-3003 (print), 1873-5649 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0096300307001890>.
- [NO97] Wolfgang Niehsen and Klaus-A. Owenier. A note on “On-line parameter identification algorithms based on Householder transformation”. *IEEE Transactions on Signal Processing*, 45(8):2121–2125, 1997. CODEN IT-PRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=611229>.
- [Nof10] David Nofre. Unraveling Algol: US, Europe, and the creation of a programming language. *IEEE Annals of the History of Computing*, 32(2): 58–68, April/June 2010. CODEN IAHCEX. ISSN 1058-6180 (print), 1934-1547 (electronic). URL https://www.researchgate.net/profile/David_Nofre/publication/224107164_Unraveling_Algol_US_Europe_and_the_Creation_of_a_Programming_Language.
- [NS10] S. H. Nasser and M. Sohrabi. Householder method for solving fully fuzzy linear systems. *International Journal of Applied Mathematics*, 23(3):479–489, 2010. ISSN 1311-1728 (print), 1314-8060 (electronic).
- [NTKN16] Waqas Nazeer, Muhmmad Tanveer, Shin Min Kang, and Amir Naseem. A new Householder’s method free from second derivatives for solving nonlinear equations and polynomialography. *J. Nonlinear Sci. Appl.*, 9(3):998–1007, 2016. ISSN 2008-1898 (print), 2008-1901 (electronic).
- [OR99] J. J. O’Connor and E. F. Robertson. Alston Scott Householder. MacTutor Web site article., 1999. URL <http://www-history.mcs.st-andrews.ac.uk/history/Biographies/Householder.html>.
- [Ort62] James McDonough Ortega. *An Error Analysis of Householder’s Method for the Symmetric Eigenvalue Problem*. Thesis (Ph.D.), Stanford University, Stanford, CA, USA, 1962. 106 pp. URL <https://search.proquest.com/docview/302169089>.
- [Ort63] James M. Ortega. An error analysis of Householder’s method for the symmetric eigenvalue problem. *Numerische Mathematik*, 5(1): 211–225, December 1963. CODEN NUMMA7. ISSN 0029-

599X (print), 0945-3245 (electronic).

Ostrowski:1956:VSH

[Ost56]

Alexander Ostrowski. Über Verfahren von Steffensen und Householder zur Konvergenzverbesserung von Iterationen. (German) [On the method of Steffensen and Householder for convergence improvement of iterations]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 7(3):218–229, May 1956. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). Mauro Picone zum 70. Geburtstag.

[Pet13]

O’Leary:1990:PFH

[OW90]

D. P. O’Leary and P. Whiteman. Parallel *QR* factorization by Householder and modified Gram–Schmidt algorithms. *Parallel Computing*, 16(1):99–112, November 1990. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).

[PR68a]

P:1971:BRH

[P.71]

B. N. P. Book review: A. S. Householder, *KWIC Index for Matrices in Numerical Analysis, Volume I: Primary Authors A–J*, viii + 124 pp., *Volume II: Primary Authors K–Z*, vii + 151 pp., 1969, Oak Ridge National Laboratory, Oak Ridge, Tennessee, 28 cm. Available from National Technical Information Service, U. S. Depart-

ment of Commerce, Springfield, Virginia 22151. Price: Printed copy \$3.00, Microfiche \$0.65, each volume. *Mathematics of Computation*, 25(115):628, July 1971. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL <http://www.ams.org/journals/mcom/1971-25-115/S0025-5718-71-99712-2>; <http://www.ams.org/journals/mcom/1971-25-115/S0025-5718-71-99712-2/S0025-5718-71-99712-2.pdf>.

Petricevic:2013:HAC

Vinko Petričević. Householder’s approximants and continued fraction expansion of quadratic irrationals. *Glas. Mat. Ser. III*, 48(68)(2):231–247, 2013. ISSN 0017-095X (print), 1846-7989 (electronic).

Powell:1968:AHT

M. J. D. Powell and J. K. Reid. On applying Householder transformations to linear least squares problems. Technical Report T.P. 322, Mathematics Branch, Theoretical Physics Division, Atomic Energy Research Establishment, Harwell, UK, February 1968. 20 pp.

Powell:1968:AHM

[PR68b]

M. J. D. Powell and J. K. Reid. On applying Householder’s method to linear least squares problems. In A. J. M. Morell, editor, *Proceedings of the IFIP Congress 68*, pages

- 122–126. North-Holland, Amsterdam, The Netherlands, 1968.
- Powell:1969:AHT**
- [PR69] M. J. D. Powell and J. K. Reid. On applying Householder transformations to linear least squares problems. In *Information Processing 68 (Proc. IFIP Congress, Edinburgh, 1968), Vol. 1: Mathematics, Software*, pages 122–126. North-Holland, Amsterdam, The Netherlands, 1969.
- Pothen:1987:DOF**
- [PR87] A. Pothen and P. Raghavan. Distributed orthogonal factorization: Givens and Householder algorithms. Technical Report CS-87-24, Department of Computer Science, Pennsylvania State University, State College, PA, USA, 1987.
- Pothen:1989:DOF**
- [PR89] Alex Pothen and Padma Raghavan. Distributed orthogonal factorization: Givens and Householder algorithms. *SIAM Journal on Scientific and Statistical Computing*, 10(6):1113–1134, November 1989. CODEN SIJCD4. ISSN 0196-5204 (print), 2168-3417 (electronic).
- Peng:1997:HBP**
- [PSS97] Shietung Peng, S. Sedukhin, and I. Sedukhin. Householder bidiagonalization on parallel computers with dynamic ring architecture. In *Proceedings of IEEE International Symposium on Parallel Algorithms Architecture Synthesis*, pages 182–191. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1997. ISBN 0-8186-7870-4. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=581657>.
- Puglisi:1992:MHM**
- [Pug92] Chiara Puglisi. Modification of the Householder method based on the compact WY representation. *SIAM Journal on Scientific and Statistical Computing*, 13(3):723–726, May 1992. CODEN SIJCD4. ISSN 0196-5204 (print), 2168-3417 (electronic).
- Polichetti:1992:PHM**
- [PVB⁺92] A. Polichetti, V. Viti, P. Barone, F. Colonna, and L. Fiume. Prony–Householder method applied to ³¹P NMR signals: II. Study of conjugates of ara-AMP with lactosaminated albumin. *Physics in Medicine and Biology*, 37(12):2231, 1992. CODEN PHMBA7. ISSN 0031-9155 (print), 1361-6560 (electronic). URL <http://iopscience.iop.org/article/10.1088/0031-9155/37/12/005>; <http://stacks.iop.org/0031-9155/37/i=12/a=005>.
- Wu:2014:EAM**
- [pWqSmZ14] Jian ping Wu, Jun qiang Song, and Wei min Zhang. An efficient and accurate method

- to compute the Fiedler vector based on Householder deflation and inverse power iteration. *Journal of Computational and Applied Mathematics*, 269(??):101–108, October 15, 2014. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0377042714001587>.
- [Ral93] R. M. S. Ralha. Parallel one-sided Householder transformations for eigenvalues computation. In *1993 Euromicro Workshop on Parallel and Distributed Processing*, pages 218–221. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1993. ISBN 0-8186-3610-6. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=336400>.
- [RCH35] J. Rosenbaum, J. W. Clawson, and A. S. Householder. Problems and solutions: Advanced problems: 3644. *American Mathematical Monthly*, 42(1):51–53, January 1935. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).
- [RDB05] Goshaidas Ray, Sitansu Dey, and T. K. Bhattacharyya. Design of reaching phase for variable structure controller based on Householder transformation. *Kybernetika (Prague)*, 41(5):601–622, 2005. ISSN 0023-5954 (print), 1805-949X (electronic).
- [Rei47] John M. Reiner. Book review: *Mathematical Biophysics of the Central Nervous System* by A. S. Householder, H. D. Landahl. *Quarterly Review of Biology*, 22(1):85–86, 1947. CODEN QRBIAM. ISSN 0033-5770 (print), 1539-7718 (electronic). URL <http://www.jstor.org/stable/2813402>.
- [Rei67] J. K. Reid. A note on the least squares solution of a band system of linear equations by Householder reductions. *The Computer Journal*, 10(2):188–189, August 1967. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL <http://comjnl.oxfordjournals.org/content/10/2/188.full.pdf+html>; http://www3.oup.co.uk/computer_journal/hdb/Volume_10/Issue_02/100188.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_10/Issue_02/tiff/188.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_10/Issue_02/tiff/189.tif.
- [RGPH16a] Cristian Rusu, Nuria González-Prelcic, and Robert W. Heath,

- Jr. Fast orthonormal sparsifying transforms based on Householder reflectors. *arxiv.org*, ??(??):??, November 24, 2016. URL <https://arxiv.org/abs/1611.08229>.
- Rusu:2016:FOSb**
- [RGPH16b] Cristian Rusu, Nuria González-Prelcic, and Robert W. Heath, Jr. Fast orthonormal sparsifying transforms based on Householder reflectors. *IEEE Transactions on Signal Processing*, 64(24):6589–6599, 2016. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=7572973>.
- Rosenbaum:1937:PSA**
- [RH37] J. Rosenbaum and A. S. Householder. Problems and solutions: Advanced problems: 3729. *American Mathematical Monthly*, 44(1):57–58, January 1937. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).
- Rashevsky:1941:MII**
- [RH41] N. Rashevsky and Alston S. Householder. On the mutual influence of individuals in a social group. *Psychometrika*, 6(5):317–321, October 1941. CODEN PSMIA3. ISSN 0033-3123 (print), 1860-0980 (electronic).
- Reeve:1999:EPV**
- [RH99] J. S. Reeve and M. Heath. An efficient parallel version of the Householder-*QL* matrix diagonalisation algorithm. *Parallel Computing*, 25(3):311–319, 1999. CODEN PACOEJ. ISSN 0167-8191 (print), 1872-7336 (electronic).
- Rheinboldt:1972:BRH**
- [Rhe72] W. Rheinboldt. Book review: A. S. Householder, *KWIC Index for the Numerical Treatment of Nonlinear Equations*, Oak Ridge National Laboratory, Oak Ridge, Tennessee, 1970, vii + 129 pp., 28 cm. Available from U. S. Department of Commerce, Springfield, Va. 22151. Price: printed copy \$3.00; microfiche \$0.65. *Mathematics of Computation*, 26(117):287–303, January 1972. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL <http://www.ams.org/journals/mcom/1972-26-117/S0025-5718-72-99110-7>; <http://www.ams.org/journals/mcom/1972-26-117/S0025-5718-72-99110-7/S0025-5718-72-99110-7.pdf>.
- Rafiq:2016:SNH**
- [RKA16] Arif Rafiq, Shin Min Kang, and Faisal Ali. Some new Householder like iterative methods. *Nonlinear Anal. Forum*, 21(1):37–46, 2016. ISSN 1226-7228.
- Rosa:2018:SSH**
- [RMP18] Kennett L. Dela Rosa, Dennis I. Merino, and Agnes T. Paras. The subspaces spanned

by Householder vectors associated with an orthogonal or a symplectic matrix. *Linear Algebra and its Applications*, 546(??):37–49, June 1, 2018. CODEN LAA-PAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0024379518300570>.

Rolfe:1990:TCH

[Rol90]

Timothy J. Rolfe. Timing comparisons of the Householder QR transformations with rank-1 and rank-2 updates. *ACM SIGNUM Newsletter*, 25(4):19–24, October 1990. CODEN SNEWD6. ISSN 0163-5778 (print), 1558-0237 (electronic).

Rader:1985:HHT

[RS85]

C. M. Rader and A. O. Steinhardt. Hyperbolic Householder transformations and the solution of least squares equations. In *Nineteenth Asilomar Conference on Circuits, Systems and Computers, 1985*, pages 436–440. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1985. ISBN 0-8186-0729-7. ISSN 1058-6393. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=671498>.

Rader:1986:HHTa

[RS86a]

C. Rader and A. Steinhardt. Hyperbolic Householder transformations, definition and application. In *ICASSP '86*.

IEEE International Conference on Acoustics, Speech, and Signal Processing, volume 11, pages 2511–2514. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1986. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1168683>.

Rader:1986:HHTb

[RS86b]

C. M. Rader and A. O. Steinhardt. Hyperbolic Householder transformations. *IEEE Trans. Acoustics, Speech, and Signal Processing*, 34(6):1589–1602, 1986. CODEN IETABA. ISSN 0096-3518. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1164998>.

Rader:1988:HHTa

[RS88a]

Charles M. Rader and Allan O. Steinhardt. Hyperbolic Householder transforms. *SIAM Journal on Matrix Analysis and Applications*, 9(2):269–290, 1988. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). SIAM Conference on Linear Algebra in Signals, Systems, and Control (Boston, Mass., 1986).

Rader:1988:HHTb

[RS88b]

Charles M. Rader and Allan O. Steinhardt. Hyperbolic Householder transforms. In *Linear algebra in signals, systems, and control (Boston, MA, 1986)*, pages 186–208. SIAM Press, Philadelphia, PA, USA, 1988.

- [RS05] M. Robbé and M. Sadkane. Convergence analysis of the block Householder block diagonalization algorithm. *BIT Numerical Mathematics*, 45(1): 181–195, March 2005. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL <http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=45&issue=1&page=181>. [Robbe:2005:CAB]
- [Rus18] Cristian Rusu. Approximate eigenvalue decompositions of linear transformations with a few Householder reflectors. *arxiv.org*, ??(??): ??, 2018. URL <http://arxiv.org/abs/1811.07624>; <https://dblp.org/rec/bib/journals/corr/abs-1811-07624>. [Rusu:2018:AED]
- [RT96] A. A. Rontogiannis and S. Theodoridis. An adaptive *LS* algorithm based on orthogonal Householder transformations. In *Proceedings of Third International Conference on Electronics, Circuits, and Systems*, volume 2, pages 860–863. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1996. ISBN 0-7803-3650-X. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=584518>. [Rontogiannis:1996:ALA]
- [RVS08] A. A. Rangelov, N. V. Vitanov, and B. W. Shore. Population trapping in three-state quantum loops revealed by Householder reflections. *Physical Review A (Atomic, Molecular, and Optical Physics)*, 77(3):033404:1–033404:7, March 2008. CODEN PLRAAN. ISSN 1050-2947 (print), 1094-1622, 1538-4446, 1538-4519. URL <https://link.aps.org/doi/10.1103/PhysRevA.77.033404>. [Rangelov:2008:PTT]
- [RT08] Athanasios A. Rontogiannis and Sergios Theodoridis. Householder-based RLS algorithms. In José Antonio Apolinário, editor, *QRD-RLS Adaptive Filtering*, chapter 7, pages 1–23. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., December 2008. [Rontogiannis:2008:HBR]
- [RW62] J. S. Rollett and J. H. Wilkinson. Letter to the Editor: [Givens and Householder processes]. *The Computer Journal*, 4(4):279, January 1962. [Rollett:1962:LEG]

- CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL <http://comjnl.oxfordjournals.org/cgi/reprint/4/4/279>; <http://comjnl.oxfordjournals.org/content/4/4/279.full.pdf+html>. [SAAE08]
- Rotella:1999:BHT**
- [RZ99] F. Rotella and I. Zambettakis. Block Householder transformation for parallel QR factorization. *Applied Mathematics Letters*, 12(4):29–34, 1999. CODEN AMLEEL. ISSN 0893-9659 (print), 1873-5452 (electronic).
- Salam:2008:EAC**
- [SAA09] A. Salam and E. Al-Aidarous. Error analysis and computational aspects of SR factorization via optimal symplectic Householder transformations. *Electronic Transactions on Numerical Analysis (ETNA)*, 33:189–206, 2008–2009. CODEN ???? ISSN 1068-9613 (print), 1097-4067 (electronic). URL <http://etna.mcs.kent.edu/vol.33.2008-2009/pp189-206.dir/pp189-206.pdf>.
- Salam:2014:EBM**
- [SAA14] A. Salam and E. Al-Aidarous. Equivalence between modified symplectic Gram–Schmidt and Householder SR algorithms. *BIT Numerical Mathematics*, 54(1):283–302, March 2014. CODEN BIT-
- TEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL <http://link.springer.com/article/10.1007/s10543-013-0441-5>.
- Salam:2008:OSH**
- A. Salam, E. Al-Aidarous, and A. El Farouk. Optimal symplectic Householder transformations for SR decomposition. *Linear Algebra and its Applications*, 429(5–6):1334–1353, September 1, 2008. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).
- Sajid:2010:FBO**
- [SAS10] I. Sajid, M. M. Ahmed, and M. Sahgeer. FPGA-based optimized architecture for face recognition using fixed point Householder algorithm. In *4th International Conference on New Trends in Information Science and Service Science*, pages 139–144. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2010. ISBN 89-88678-17-6, 1-4244-6982-1. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=5488631>.
- Sosonkina:1998:SPI**
- [SAW98] M. Sosonkina, D. C. S. Allison, and L. T. Watson. Scalable parallel implementations of the GMRES algorithm via Householder reflections. In *Proceedings. 1998 International Conference on Parallel Processing*, pages 396–

404. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998. ISBN 0-8186-8650-2. ISSN 0190-3918. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=708511>. IEEE catalog no. 98EX205.
- [SB16] Ahmed Salam and Haithem Ben Kahla. An upper J -Hessenberg reduction of a matrix through symplectic Householder transformations. *arxiv.org*, ??(??):??, December 27, 2016. URL <https://arxiv.org/abs/1612.08707>.
- [Sca74] B. K. P. (Brendan Kevin Patrick) Scaife, editor. *Studies in numerical analysis: papers in honour of Cornelius Lanczos*. Academic Press, New York, NY, USA, 1974. ISBN 0-12-621150-7. xxii + 333 pp. LCCN QA297 .S86. URL <http://catalog.hathitrust.org/Record/000575557>. Published for the Royal Irish Academy.
- [Sch69] E. Schmid. Book review: F. L. Bauer and A. S. Householder and F. J. Olver and H. Rutishauser and K. Samelson and E. Stiefel, *Handbook for Automatic computation, Vol. I Die Grundlehren der mathematischen Wissenschaften in Einzeldarstellungen mit besonderer Berücksichtigung der Anwendungsgebiete*, Band 135. *Computing*, 4(3):276, September 1969. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).
- [Sch70] E. Schmid. Book review: F. L. Bauer and A. S. Householder and F. W. J. Oliver and H. Rutishauser and K. Samelson and E. Stiefel (Hg.), *Handbook for Automatic Computation, Vol. I, Part B (Die Grundlehren der mathematischen Wissenschaften in Einzeldarstellungen mit besonderer Berücksichtigung der Anwendungsgebiete: Band 137)*. *Computing*, 6(1–2):214, March 1970. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).
- [SEAA08] A. Salam, A. El Farouk, and E. Al-Aidarous. Symplectic Householder transformations for a QR -like decomposition, a geometric and algebraic approaches. *Journal of Computational and Applied Mathematics*, 214(2):533–548, May 1, 2008. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0377042707001537>.
- [SGGH35] Elmer Schuyler, Hansraj Gupta, L. Green, and A. S. House-

Schmid:1970:BRF

Salam:2016:UHR

Scaife:1974:SNA

Salam:2008:SHT

Schmid:1969:BRF

Schuyler:1935:PSA

- holder. Problems and solutions: Advanced problems: 3681. *American Mathematical Monthly*, 42(10):627–629, December 1935. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).
- [SH49] C. W. Sheppard and A. S. Householder. The interpretation of experimental investigations of transfers within a two-compartment system, using isotopic tracers. Technical Report ORNL-497, Oak Ridge National Laboratory, Oak Ridge, TN, USA, December 29, 1949. URL <https://www.osti.gov/biblio/4418800-interpretation-experimental-investigations-transfers-within-two-compartment-system-using-isotopic-tracers>. [Ski46]
- [SH50] C. W. Sheppard and A. S. Householder. The mathematical basis of the interpretation of tracer experiments in closed steady state systems. Technical Report ORNL-716, Oak Ridge National Laboratory, Oak Ridge, TN, USA, June 27, 1950. ??? pp. URL <https://www.osti.gov/biblio/4438385-mathematical-basis-interpretation-tracer-experiments-closed-steady-state-systems>. [SL06a]
- [SH51] C. W. Sheppard and A. S. Householder. The mathematical basis of the interpretation of tracer experiments in closed steady-state systems. *Journal of Applied Physics*, 22:510–520, 1951. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.
- Meiyue Shao. Householder orthogonalization with a nonstandard inner product. *SIAM Journal on Matrix Analysis and Applications*, 44(2):481–502, ??? 2023. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic). URL <https://epubs.siam.org/doi/10.1137/21M1414814>.
- B. F. Skinner. Book review: *Mathematical Biophysics of the Central Nervous System* by A. S. Householder, H. D. Landahl. *American Journal of Psychology*, 59(1):167–169, January 1946. CODEN AJPCAA. ISSN 0002-9556 (print), 1939-8298 (electronic). URL <http://www.jstor.org/stable/1417013>.
- Stephen J. Sangwine and Nicolas Le Bihan. Quaternion singular value decomposition based on bidiagonalization to a real or complex matrix using quaternion Householder transformations.

- arxiv.org*, ??(??):??, March 10, 2006. URL <https://arxiv.org/abs/math/0603251>. [SM13]
- [SL06b] Stephen J. Sangwine and Nicolas Le Bihan. Quaternion singular value decomposition based on bidiagonalization to a real or complex matrix using quaternion Householder transformations. *Applied Mathematics and Computation*, 182(1):727–738, November 1, 2006. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0096300306003808>. **Sangwine:2006:QSVb**
- [SM07] Theodore E. Simos and George Maroulis, editors. *Computation in Modern Science and Engineering: Proceedings of the [Fifth] International Conference on Computational Methods in Science and Engineering 2007 (ICCMSE 2007), Corfu, Greece, 25–30 September 2007*, volume 2A, 2B of AIP Conference Proceedings (#963). American Institute of Physics, Woodbury, NY, USA, 2007. ISBN 0-7354-0476-3 (set), 0-7354-0477-1 (vol. 1), 0-7354-0478-X (vol. 2). ISSN 0094-243X (print), 1551-7616 (electronic), 1935-0465. LCCN Q183.9 .I524 2007. URL <http://www.springer.com/physics/atoms/book/978-0-7354-0478-6>. **Simos:2007:CMS**
- [Smi12] Aaron Carl Smith. Using Householder matrices to establish mixing test critical values. *arxiv.org*, ??(??):1–24, October 24, 2012. URL <https://arxiv.org/abs/1210.6492>. **Smith:2012:UHM**
- [SSCT14] Farahnaz Soleimani, Fazlollah Soleymani, Alicia Cordero, and Juan R. Torregrosa. On the extension of Householder’s method for weighted Moore–Penrose inverse. *Applied Mathematics and Computation*, 231(??):407–413, March 15, 2014. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL <http://www.sciencedirect.com/science/article/pii/S0096300314000587>. **Soleimani:2014:EHM**
- Sianaki:2013:FTA**
- O. A. Sianaki and M. A. S. Masoum. A fuzzy TOPSIS approach for home energy management in smart grid with considering Householders’ preferences. In *2013 IEEE PES Innovative Smart Grid Technologies Conference (ISGT)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2013. ISBN 1-4673-4896-1, 1-4673-4894-5, 1-4673-4895-3. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6497819>.

- [SSY96] Osamu Shukuzawa, Toshio Suzuki, and Ichiro Yokota. Real tridiagonalization of Hermitian matrices by modified Householder transformation. *Proceedings of the Japan Academy of Sciences. Series A. Mathematical Sciences*, 72(5):102–103, 1996. CODEN PJAADT. ISSN 0386-2194. URL <http://projecteuclid.org/euclid.pja/1195510371>. [Ste88]
- Shukuzawa:1996:RTH**
- [ST05a] Gisbert Stoyan and Galina Takó. Numerikus módszerek 1. (Hungarian) [Numerical methods]. Web site, 2005. URL <https://www.tankonyvtar.hu/hu/tartalom/tkt/numerikus-modszerek-1/ch03s05.html>. [Ste93]
- Stoyan:2005:NMHa**
- [ST05b] Gisbert Stoyan and Galina Takó. Numerikus módszerek 1. (Hungarian) [Numerical methods]. Web site, 2005. URL <https://www.tankonyvtar.hu/hu/tartalom/tkt/numerikus-modszerek-1/ch04s05.html>. [Ste11]
- Stoyan:2005:NMHb**
- [Ste79] G. W. Stewart. Preface: A. S. Householder. *Linear Algebra and its Applications*, 28(??):1–3 + 1, December 1979. CODEN LAA-PAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL <http://www.sciencedirect.com/science/article/pii/0024379579901125>. [Str09a]
- Stewart:1979:PH**
- Steinhardt:1988:HTS**
- A. O. Steinhardt. Householder transforms in signal processing. *IEEE ASSP magazine: a publication of the IEEE Acoustics, Speech, and Signal Processing Society*, 5(3):4–12, 1988. ISSN 0740-7467 (print), 1558-1284 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=9259>.
- Stewart:1993:ASH**
- G. W. Stewart. Alston Scott Householder (1904–1993). *SIAM News*, 26(??):??, October 1993. ISSN 0036-1437. URL <http://archive.is/20130115033809/http://sites.uclouvain.be/HHXIX/AlstonHouseholder/#selection-215.0-215.36>.
- Stewart:2011:WTE**
- G. W. Stewart. When is twice enough? (The oblique case). In *Householder Symposium XVIII on Numerical Linear Algebra, June 12–17, 2011. Granlibakken Conference Center & Lodge, Tahoe City, California*, pages 220–221. ????, 2011. URL http://www.maths.manchester.ac.uk/~higham/conferences/householder/HH11_Abstracts.pdf.
- Strobach:2009:QHS**
- P. Strobach. The QS -Householder sliding window bi-SVD subspace tracker. *IEEE*

- Transactions on Signal Processing*, 57(11):4260–4268, 2009. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=5153280>. [SV89]
- Strobach:2009:HSW**
- [Str09b] Peter Strobach. The QS -Householder sliding window bi-SVD subspace tracker. *IEEE Transactions on Signal Processing*, 57(11):4260–4268, 2009. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic). [TAC18]
- Strobach:2009:SRH**
- [Str09c] Peter Strobach. Square-root Householder subspace tracking. *Numerische Mathematik*, 113(1):89–121, July 2009. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL <http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=113&issue=1&spage=89>.
- Suzuki:2015:FCL**
- [Suz15] T. Suzuki. Four-channel lifting-Householder-based Hadamard transform. In *2015 IEEE International Conference on Image Processing (ICIP)*, pages 2144–2148. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015. ISBN 1-4799-8339-X, 1-4799-8338-1. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=7351180>. [Tan81]
- Schreiber:1989:SER**
- Robert Schreiber and Charles Van Loan. A storage-efficient WY representation for products of Householder transformations. *SIAM Journal on Scientific and Statistical Computing*, 10(1):53–57, January 1989. CODEN SIJCD4. ISSN 0196-5204 (print), 2168-3417 (electronic).
- Takeda:2018:TSC**
- S. Takeda, T. Anada, and C. Chen. A theoretical synthesis of coupling matrix by eigen mode expansion method and Householder transform. In *2018 48th European Microwave Conference (EuMC)*, pages 364–367. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018. ISBN 2-87487-051-X, 2-87487-050-1, 1-5386-5285-4. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8541567>.
- Tan:1981:SRM**
- Ling Tan. Skew-reflection matrix and the generalization of Householder transformation. *Math. Numer. Sinica*, 3(1):66–71, 1981. ISSN 0254-7791.
- Tanaka:1982:GMH**
- Teruo Tanaka. Givens’ method and Householder’s method for solution of sparse least squares

- problem. *Proceedings of the Institute of Statistical Mathematics*, 30(2):77–93 (1983), 1982. ISSN 0912-6112.
- [Tan83] Teruo Tanaka. Givens' method and Householder's method for the solution of sparse least squares problems. *Proceedings of the Institute of Statistical Mathematics*, 30, 1983. ISSN 0563-685X.
- [TKV15] Boyan T. Torosov, Elica Kyo-seva, and Nikolay V. Vitanov. Fault-tolerant composite Householder reflection. *Journal of Physics B: Atomic, Molecular and Optical Physics*, 48 (13):135502, May 2015. CODEN JPAPEH. ISSN 0953-4075 (print), 1361-6455 (electronic).
- [TKV16] Boyan T. Torosov, Elica Kyo-seva, and Nikolay V. Vitanov. Fault-tolerant composite Householder reflection. *arxiv.org*, ??(??):1–5, May 16, 2016. URL <https://arxiv.org/abs/1605.04977>.
- [TLHY92] C. F. T. Tang, K. J. R. Liu, S. F. Hsieh, and K. Yao. VLSI algorithms and architectures for complex Householder transformation with applications to array processing. *Journal of VLSI signal processing systems for signal, image and video technology*, 4(1):53–68, February 1992.
- [TLT91] C. F. T. Tang, K. J. R. Liu, and S. A. Tretter. On systolic arrays for recursive complex Householder transformations with applications to array processing. In *[Proceedings] ICASSP 91: 1991 International Conference on Acoustics, Speech, and Signal Processing*, volume 2, pages 1033–1036. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1991. ISBN 0-7803-0003-3. ISSN 1520-6149. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=150519>.
- [Tsa75] Nai Kuan Tsao. A note on implementing the Householder transformation. *SIAM Journal on Numerical Analysis*, 12 (1):53–58, March 1975. CODEN SJNAAM. ISSN 0036-

- 1429 (print), 1095-7170 (electronic).
- [TW16] Jakub M. Tomczak and Max Welling. Improving variational auto-encoders using Householder flow. *arxiv.org*, ??(??):??, November 29, 2016. URL <https://arxiv.org/abs/1611.09630>.
- [Ur10] Jesús Urías. Householder factorizations of unitary matrices. *Journal of Mathematical Physics*, 51(7):072204:1–072204:9, July 2010. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL http://jmp.aip.org/resource/1/jmapaq/v51/i7/p072204_s1.
- [Var66] R. S. Varga. Book review: *The Theory of Matrices in Numerical Analysis* (Alston S. Householder). *SIAM Review*, 8(1): 127–128, 1966. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).
- [Var90] Richard S. Varga. Reminiscences on the University of Michigan summer schools, the Gatlinburg Symposia, and *Numerische Mathematik*. In Nash [Nas90], pages 206–210. ISBN 0-201-50814-1. LCCN QA76.17 .H59 1990.
- [vdeGV11] Robert A. van de Geijn and Field G. Van Zee. High-performance up-and-downdating via Householder-like transformations. *ACM Transactions on Mathematical Software*, 38(1): 4:1–4:17, November 2011. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).
- [VM03a] Peter G. Vouras and Gerard G. L. Meyer. Hybrid QR factorization algorithm for high performance computing architectures. 24 lecture slides., May 21, 2003. URL <https://apps.dtic.mil/dtic/tr/fulltext/u2/a419884.pdf>.
- [VM03b] Peter G. Vouras and Gerard G. L. Meyer. Hybrid QR factorization algorithm for high performance computing architectures. Technical report, Naval Research Laboratory, Washington, DC, USA, May 21, 2003. 3 pp. URL https://www.researchgate.net/profile/Gerard_Meyer/publication/277869278_Hybrid_QR_Factorization_Algorithm_for_High_Performance_Computing_Architectures/links/55a7bf0c08ae35c4361315d3/Hybrid-QR-Factorization-Algorithm-for-High-Performance-Computing-Architectures.pdf?origin=publication_detail.

Walker:1988:ESH

- [Wal88a] H. F. Walker. Experiments with the stable Householder implementation of the GMRES method in stiff ODE solving. Report UCID-21343, Lawrence Livermore National Laboratory, Livermore, CA, USA, March 1, 1988. URL <https://www.osti.gov/biblio/5288704-experiments-stable-householder-implementation-gmres-method-stiff-ode-solving>. [Wil60]

Walker:1988:IGM

- [Wal88b] Homer F. Walker. Implementation of the GMRES method using Householder transformations. *SIAM Journal on Scientific and Statistical Computing*, 9(1):152–163, January 1988. CODEN SIJCD4. ISSN 0196-5204 (print), 2168-3417 (electronic). URL <https://www.osti.gov/biblio/5458302-implementation-gmres-method-using-householder-transformations>.

Wang:1987:RSB

- [Wan87] Shou Gen Wang. Reduction of a symmetric band matrix to tridiagonal form by Householder transformations. *Comm. Appl. Math. Comput.*, 1(1):89–91, 1987. ISSN 1006-6330.

Weinberg:1941:SDI

- [WH41] A. M. Weinberg and A. S. Householder. Statistical distribution of impedance elements in biological systems. *Bulletin*

of Mathematical Biophysics, 3(4):129–135, December 1941. CODEN BMBIAO. ISSN 0007-4985 (print), 2376-8398 (electronic). URL <http://link.springer.com/article/10.1007/BF02477932>.

Wilkinson:1960:HMS

J. H. Wilkinson. Householder's method for the solution of the algebraic eigenproblem. *The Computer Journal*, 3(1):23–27, April 1960. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic). URL <http://comjnl.oxfordjournals.org/content/3/1/23.full.pdf+html>; http://www3.oup.co.uk/computer_journal/hdb/Volume_03/Issue_01/030023.sgm.abs.html; http://www3.oup.co.uk/computer_journal/hdb/Volume_03/Issue_01/tiff/23.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_03/Issue_01/tiff/24.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_03/Issue_01/tiff/25.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_03/Issue_01/tiff/26.tif; http://www3.oup.co.uk/computer_journal/hdb/Volume_03/Issue_01/tiff/27.tif.

Wilkinson:1962:HMS

J. H. Wilkinson. Householder's method for symmetric matrices. *Numerische Mathematik*, 4(1):354–361, December 1962. CODEN NUMMA7. ISSN

[Wil62]

0029-599X (print), 0945-3245 (electronic).

Wilkinson:1975:AHA

- [Wil75a] J. H. Wilkinson. Alston S. Householder award. *Linear Algebra and its Applications*, 11(1):1, 1975. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL <http://www.sciencedirect.com/science/article/pii/0024379575901111>. ■

Willoughby:1975:CAH

- [Wil75b] Ralph A. Willoughby, editor. [Wri06] *Collection of articles honoring Alston S. Householder*. ACM Press, New York, NY 10036, USA, 1975. 1–73 pp. Special issue of Comm. ACM **18** (1975), no. 1, pp. 3–58.

Willoughby:1975:SIH

- [Wil75c] Ralph A. Willoughby. Special issue honoring Alston S. Householder — Editor’s foreword. *Communications of the ACM*, 18(1):3–??, 1975. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic).

Wilkinson:1978:AHA

- [Wil78] J. H. Wilkinson. The Alston S. Householder Award. *Numerische Mathematik*, 29(4): 463, April 1978. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Wilkinson:1971:LA

James H. Wilkinson and Christian Reinsch, editors. *Linear Algebra*, volume II of *Handbook for Automatic Computation*, Editors: F. L. Bauer, A. S. Householder, F. W. J. Olver, H. Rutishauser, K. Samelson and E. Stiefel. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1971. ISBN 0-387-05414-6, 3-540-05414-6. viii + 439 pp. LCCN QA251 .W67.

Wright:2006:RMH

Stephen E. Wright. Real matrix homotopies based on Householder reflections. *Linear Algebra and its Applications*, 412(2–3):538–545, January 15, 2006. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Werner:2004:HBL

S. Werner, M. With, and V. Koivunen. Householder based low-rank space-time processor for anti-jamming navigation receivers. In *2004 12th European Signal Processing Conference*, pages 825–828. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=7079847>.

With:2004:HBA

M. With, S. Werner, and V. Koivunen. Householder-

- based anti-jamming navigation receiver structures. In *Processing Workshop Proceedings, 2004 Sensor Array and Multichannel Signal*, pages 79–83. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2004. ISBN 0-7803-8545-4. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1502912>. [WZ18]
- [WWK07] S. Werner, M. With, and V. Koivunen. Householder multistage Wiener filter for space-time navigation receivers. *IEEE Transactions on Aerospace and Electronic Systems*, 43(3):975–988, 2007. CODEN IEARAX. ISSN 0018-9251, 1557-9603, 2371-9877. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4383587>. [WZBW18]
- [WWX07] Yun Wang, Jinkuan Wang, and Zhibin Xie. Parallel MIMO detection algorithm based on Householder transformation. In *2007 International Symposium on Intelligent Signal Processing and Communication Systems*, pages 180–183. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 1-4244-1446-6, 1-4244-1447-4. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4445853>. [Xu00]
- [Xue83] Yan Cai Xue. Generalized Householder transformation. *Journal on Numerical Methods and Computer Applications*, 4
- Wang:2018:AIS**
- D. Wang and G. Zhang. The adaptive interference suppression method based on Householder at subarray level. In *2018 International Applied Computational Electromagnetics Society Symposium (ACES)*, pages 1–2. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018. ISBN 0-9960078-7-3, 1-5386-4857-1. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8364304>.
- Wang:2018:IMO**
- Jinmiao Wang, Hui Zhao, Lin Bi, and Liguan Wang. Implicit 3D modeling of ore body from geological boreholes data using Hermite radial basis functions. *Minerals (Basel)*, 8(10):443, October 2018. CODEN MBSIBI. ISSN 2075-163X.
- Xu:2000:MDH**
- Ming Hua Xu. A method for determining the Householder transform in the algorithm VGMRES(m). *Nanjing Daxue Xuebao Shuxue Ban-nian Kan*, 17(1):140–146, 2000. ISSN 0469-5097.
- Xue:1983:GHT**

- (4):224–228, 1983. ISSN 1000-3266.
- [XWW07] Z. Xie, J. Wang, and Y. Wang. Antenna selection for spatial multiplexing systems based on complex Householder QR factorization. In *2007 International Conference on Wireless Communications, Networking and Mobile Computing*, pages 710–713. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007. ISBN 1-4244-1311-7, 1-4244-1312-5. ISSN 2161-9646 (print), 2161-9654 (electronic). URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4339959>.
- [Zhu:2009:SIE] Sheng xin Zhu, Tong xiang Gu, and Xing ping Liu. Solving inverse eigenvalue problems via Householder and rank-one matrices. *Linear Algebra and its Applications*, 430(1): 318–334, January 1, 2009. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).
- [Yan89] Shu Guang Yang. The realization of the best approximation from the space L_2 to L_∞ using the Householder transformation. *J. Math. (Wuhan)*, 9(1):57–66, 1989. ISSN 0255-7797.
- [YC97] Wen-Ming Yan and Kuo-Liang Chung. A block representation for products of hyperbolic Householder transform. *Applied Mathematics Letters*, 10(1):109–112, 1997. CODEN AMLEEL. ISSN 0893-9659 (print), 1873-5452 (electronic).
- [YFS21] L. Minah Yang, Alyson Fox, and Geoffrey Sanders. Rounding error analysis of mixed precision block Householder QR algorithms. *SIAM Journal on Scientific Computing*, 43(3): A1723–A1753, 2021. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).
- [YH38] Gale Young and A. S. Householder. Discussion of a set of points in terms of their mutual distances. *Psychometrika*, 3(1):19–22, March 1938. CODEN PSMIA3. ISSN 0033-3123 (print), 1860-0980 (electronic).
- [YH40] Gale Young and A. S. Householder. Factorial invariance and significance. *Psychometrika*, 5(1):47–56, March 1940. CODEN PSMIA3. ISSN 0033-3123 (print), 1860-0980 (electronic).
- [YH41] Gale Young and A. S. Householder. A note on multidimensional psychophysical analysis. *Psychometrika*, 6(5):

- 331–333, October 1941. CODEN PSMIA3. ISSN 0033-3123 (print), 1860-0980 (electronic).
- Yuanyuan:2011:NAB**
- [YH11] Wen Yuanyuan and Chen Hao. A new algorithm based on joint diagonalization by the Householder transformation for convolutive blind separation. In *2011 IEEE International Conference on Computer Science and Automation Engineering*, volume 3, pages 348–352. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2011. ISBN 1-4244-8728-5, 1-4244-8727-7, 1-4244-8726-9. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=5952695>.
- Yan:2001:ASS**
- [YJ01] Qing You Yan and Zhong Xiao Jia. The algorithm of special symplectic Householder transformations and symplectic Givens transformations. *J. Dalian Univ. Technol.*, 41(4): 399–404, 2001. ISSN 1000-8608.
- Yang:2012:AHB**
- [YL12] W. Yang and Z. Liu. Accelerating Householder bidiagonalization with arm neon technology. In *Proceedings of The 2012 Asia Pacific Signal and Information Processing Association Annual Summit and Conference*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012. ISBN 0-615-70050-0, 1-4673-4863-5. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6411821>.
- Yan:2005:SNP**
- [YR05] Lie Ya Yan and Xue Ming Ren. Some new properties of Householder matrices. *Pure Appl. Math. (Xi'an)*, 21(1):16–19, 2005. ISSN 1008-5513.
- Yang:2013:DCB**
- [YSLZ13] Xiaopeng Yang, Yuze Sun, Yongxu Liu, and Ji Zhang. Derivative constraint-based Householder multistage Wiener filter for adaptive beamforming. In *IET International Radar Conference 2013*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2013. ISBN 1-84919-603-6. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6624595>.
- Yu:1991:SEA**
- [Yu91] Huili Yu. A spectral estimation algorithm using the Householder transform. *Journal of Electronics (China)*, 8(1):77–85, January 1991.
- Zhu:1992:HTR**
- [Zhu92] J. Zhu. Householder transformation for the regularized least square problem on iPSC/860. In *Proceedings of the Sixth International Parallel Processing Symposium*, pages 433–

436. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1992. ISBN 0-8186-2672-0. URL <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=223007>.

Zhang:2010:HTB

- [ZL10] Wei-Tao Zhang and Shun-Tian Lou. Householder transform based joint diagonal zero diagonalization for source separation using time-frequency distributions. *Multidimensional Systems and Signal Processing*, 21(2):161–177, 2010. ISSN 0923-6082 (print), 1573-0824 (electronic). URL <https://link.springer.com/article/10.1007/s11045-009-0094-3>.

Zhao:2017:SKM

- [ZXLL17] Yong-Ping Zhao, Peng-Peng Xi, Bing Li, and Zhi-Qiang Li. Sparse kernel minimum squared error using Householder transformation and Givens rotation. *Applied Intelligence*, 48(2):390–415, July 2017. CODEN APITE4. ISSN 0924-669X (print), 1573-7497 (electronic).