A Bibliography of Publications of Eduard Stiefel

Nelson H. F. Beebe
University of Utah
Department of Mathematics, 110 LCB
155 S 1400 E RM 233
Salt Lake City, UT 84112-0090
USA

Tel: +1 801 581 5254

E-mail: beebe@math.utah.edu, beebe@acm.org,
beebe@computer.org (Internet)
WWW URL: https://www.math.utah.edu/~beebe/

22 October 2024
Version 1.17

Abstract

This bibliography records publications of Eduard Stiefel (21 April 1909–25 November 1978)

Title word cross-reference

2 [Cus84]. **$3.95** [Str61]. K [CZNL18, GL70]. M [CR01]. n [Sti35a, Sti35b].

-dimensional [Sti35a, Sti35b]. **-dimensionalen** [Sti35a, Sti35b]. **-estimation** [CR01]. **-groups** [Cus84]. **-Means** [CZNL18].

'03 [IEE03].

11/27/1978 [BGHS79]. **135** [Sch69]. **14th** [Sti53a]. **15th** [Sti59a]. **1958** [Lan59]. **1962** [ASSW61c]. **1969** [Alb71]. **1972** [TS73]. **1975** [ST76].

2003 [IEE03]. **20th** [Sti59a, Cip00]. **286** [R.65].

3. [Sti53a]. **34** [H.70]. **34-** [H.70].

4/21/1909 [BGHS79].

60 [BHO+67].

9th [Sti53a].

Abbreviated [ASSW61b]. **abelian** [Cus84]. **Abgekürzte** [ASSW61b]. **above** [Sti55a]. **Academic** [Ham64, Her64a, R.65]. **acceleration** [Bra89]. **accuracy** [BS74a]. **Acoustics** [IEE03]. **Acquisition** [Spe98, Spe99]. **actions** [Cus84]. **Adaptive** [KY19, DLLL19]. **Additional** [Sti63b]. **Adjoint** [EGRS59b, Sti59b, Str61]. **Adjustment** [Sti53d]. **ADMM** [THY+19]. **Advanced** [ST76, TS73]. **Advances** [TS73]. **advantage** [Del73]. **affine** [DHG+17]. **Algebra** [Sti63j, Sti63m, Sti41b, Sti55e, Sti58, Sti41b]. **Algebraic** [Zim17, Deg92, FHW48]. **Algebras** [Sti76a]. **ALGOL** [BHO+67]. **Algorithm** [SLLT18, Zim17, FB12, KMLB17, LLW22, YZ13, YML16]. **Algorithms** [Cip00, DS00, NMH02, HWY20, Man01, WSH+17, Wan23]. **allgemeinen** [Sti54, Sti55b]. **Almost** [MTG18]. **Altes** [Sti61a]. **am** [ASSW61h]. **Analysis** [LDT+19, Par74, SRS73, LDL+17, TVC08]. **analytic** [Tuo78]. **analytical** [KS78]. **analytischen** [KS78]. **Andenken** [Zus79]. **angewandte** [Tod52]. **angewandten** [Ste69, Sti51]. **Anwendung** [Sti41a, SF79]. **Anwendungen** [KS78]. **Anwendungsgebiete** [Sch69, Sch70]. **Appendix** [Sti63c, Sti63d]. **Application** [BB20, HWY20, IJW93a, IJW93b, LLW22, LBK09, Sti41a, Sti53b, SF79]. **Applications** [FS92, KT12, Mar77, CV19, FL97, FB12, KS78, Sti52b, Sti55e, Sti58, Svr93, TVC08, Sti56b]. **applied** [Sti51]. **approach** [BKG15]. **Approximation** [Sti63i, Sti64b, Lan59, Sti59d, Sti60, Sti65b]. **Approximationen** [Sti59c]. **Approximations** [Sti59c, Sti63e, KPW13, Usc08]. **April** [IEE03, Lan59]. **arbitrary** [BL17]. **Architectures** [RH00]. **arising** [CZ15]. **Arithmetic** [KFT13, Sti53b]. **arithmétique** [Sti53b]. **Armijo** [DW12]. **aspects** [BRS63]. **Astronomy** [TS73]. **Asymptotically** [PV15]. **Aufstellung** [Sti53d]. **Aufzählung** [Sti41a]. **August** [ST76, TS73]. **Ausgleichung** [Sti53d]. **Austrian** [ASSW61g, Sti53a]. **Automatic** [Sch69, Sch70]. **Automation** [ASSW61h]. **aux** [Del73, Sti53b]. **avantage** [Del73]. **average** [FKT14]. **averages** [KTF12]. **Averaging** [KFT13].

B [H.70, Sve62, Woo62, Sch70]. **ball** [PT12b]. **balls** [KV08b, KV08a]. **Band** [Sch69, Sch70]. **Base** [PT12a]. **Based** [LDT+19, TVSC11, dBL01, BKG15, BTD16, FKT12, IKAH17, KS65, PV15, WSH+17, Zha09]. **Basel** [Elt48, Str61, Tod52]. **Bauer** [Sch69, Sch70]. **Baumgarte** [Kir80]. **Bayesian** [TW07]. **Bd** [Ste69]. **beamforming** [CG11]. **Behandlung** [Sti57a]. **beim** [ASSW61b]. **Beispiel** [Sti55b]. **Bemerkung** [Sti55a]. **Berechnung** [Sti53c]. **Berlin** [Sti72a]. **Berücksichtigung** [Sch69, Sch70]. **besonderer** [Sch69, Sch70]. **Best** [Cip00, Sti55c]. **bester** [Sti55c]. **Bestimmung** [Sti44].

Betriebsführung [ASSW61f]. **Betti** [Sti49]. **Bettis** [Del73, Jai88]. **between** [BKL17, Sti41a]. **Bewegungsgruppen** [Sti41a]. **Beziehung** [Sti41a]. **BFGS** [BKG18]. **Bibliographie** [Hei79]. **bilinear** [FV13, Sna85]. **Bingham** [KPW13]. **biometrische** [ASSW61e]. **Bipedal** [SLLT18]. **Birkhäuser** [Elt48, Str61, Tod52]. **Birkhoff** [SW65]. **bis** [Sti53a]. **Blind** [LDL03]. **Block** [Bra89, HSG+15, SS80]. **bodies** [SW65]. **Body** [Sti73b, SS71]. **Book** [Alb71, Elt48, H.70, Ham64, Her64a, Par74, R.65, Sch69, Sch70, Ste69, Str61, Sve62, Tod52, Woo62, BSRD+55, BGS+50, BSR53, BFF+50, BdHF+64, BFS+50, CZZG+70, GRDS+55, HHR+68, LSE+58, RDSG61, RDSW+61, SSG+63, SSP+66, TTB+63, WRDT+62, WRDG+56, ZGRD+59, dHESS55]. **both** [FL97]. **Boundary** [EGRS59b, Sti59b, Sny82, Sti52b, Str61]. **boundary-value** [Sti52b]. **Bounds** [BBHL08, Hen05, PT12b]. **BPSK** [LDL03]. **broadcasting** [HSG+14]. **Buchbesprechung** [Sti72a]. **Buchbesprechungen** [BSRD+55, BGS+50, BSR53, BFF+50, BdHF+64, BFS+50, CZZG+70, GRDS+55, HHR+68, LSE+58, RDSG61, RDSW+61, SSG+63, SSP+66, TTB+63, WRDT+62, WRDG+56, ZGRD+59, dHESS55]. **Building** [Bru20a]. **bundles** [Hog82, NT78].

C [Her64a, Her64b]. **calculating** [RSS51b, RSS51c, RSS51a, Sti50, Sti55d]. **calculation** [KS78, Sti52c, Sti53c, Sti54]. **calculator** [Sti53b, Sti55d]. **calculators** [Sti55b]. **calculer** [Sti53b]. **Canonical** [LBK09, Zim17, Kur77, SS68, SS71]. **canonique** [SS68]. **Carlo** [BLSM14]. **case** [CR01]. **Casteljau** [KMLB17]. **Cauchy** [Sti52a]. **Cayley** [FKT12, KY19, SW19]. **Cayley-transform-based** [FKT12]. **Celestial** [Sti64a, Sti73a, Sti76a, SS75, Sti65a, Sti70a, SS71]. **Centre** [IEE03]. **Century** [Lid01, Cip00]. **Certain** [BS17, Tuo78]. **CG** [CLS24, HAE21]. **characters** [Sti44, Sti52b, Svr93]. **Charaktere** [Sti44]. **charge** [IJW93a, IJW93b]. **Chebyshev** [Sti59c]. **chemical** [ASSW61j]. **chemischen** [ASSW61j]. **Chern** [Svr93]. **Chronicle** [Lid01]. **class** [Wan23]. **classes** [Sna85, Str72, Svr93]. **Classification** [AGA16, PV08]. **Cliffs** [Par74]. **Clinical** [PBC19]. **clos** [Sti49]. **Closed** [McC85, FB12, Sti41a, Sti44, Sti49]. **clustering** [CV09]. **cm** [H.70, Ham64]. **cm.** [Par74]. **Codebook** [PT12a]. **Codebooks** [PT14]. **Codes** [BBHL08, HSG+15, PWTH18, PT13]. **Cognitive** [CG11]. **Cohomology** [AGMP99]. **combination** [DHG+17]. **Comment** [Sti55a]. **Compact** [KFT13, FKT12, FKT14, KTF12]. **companies** [ASSW61j]. **Complex** [AGMP99, BB20, KV08a, Man01]. **Complexity** [Kro03]. **components** [Has08]. **Composite** [KV09]. **compressible** [BTD16]. **Computation** [EGRS59b, Sch70, Has08, Sch69, Str61]. **Computational** [Sti63c, Alb71]. **Computations** [TVSC11]. **compute** [KTF12]. **Computer** [Bru20a, CRB24, Lee95, Neu05, CZ15, MKS98, TVC08, Zus79]. **Computerentwicklung** [Zus79]. **Computers** [RH00]. **Computing** [Bru17, Sch81, ASSW61j, Roj98, RSS51b, RSS51c, RSS51a]. **Conclusions** [EGRS59a]. **condition** [DLHY15, Zha09]. **conditions** [KBA23b]. **Conference** [IEE03, Sti59a, Sti73a, SSK80, ASSW61j, SSK76, ASSW61h].

conferences [Sti70a]. **confirmed** [PBC19]. **conformal** [Sti56b]. **Congrès** [Sti56a]. **Congress** [Sti53a, Sti56a]. **Congresses** [Sti51]. **conjugacy** [DLHY15, KBA23b]. **Conjugate** [HS52, O'L01, SLLT18, AFP19, BKG15, BKG17, BSA18, DC05, DW12, DLHY15, DLL+17, DHG+17, DLLL19, FA21, GXS95, Heg88b, Heg88a, HWY20, KBA23b, LLW22, NK21, QHL96, SA16, Shi01, WSH+17, Wan23, WHT10, YZ13, YML16, Zha09]. **connections** [NT78]. **considering** [KBA23a]. **constant** [KPW13]. **constants** [Sti53c]. **constrained** [HKH+22, Man01, SL15]. **constraints** [AKAW19]. **controlled** [RSS51b, RSS51c, RSS51a, Sti50]. **Controller** [SLLT18]. **controls** [Sti57a]. **Convention** [IEE03]. **Convergence** [Dun74, BSA18, DW12, GXS95, Shi01, SL15, WHT10, ZZ12, ZZ13]. **Convergent** [SLLT18]. **convex** [AKAW19, KT12, Usc08]. **Cooperation** [PT12a]. **corps** [SW65]. **Cortina** [ST76, TS73]. **covariance** [BM14]. **Cowell** [SB69]. **Crystallographic** [Sti44]. **cybernetics** [Sti55b, Sti56a]. **cybernétique** [Sti56a].

Dai [BKG15, NK21]. **damped** [Jai88]. **D'Ampezzo** [TS73, ST76]. **Dan** [DC05]. **dans** [SW65, SS68]. **darstellenden** [Elt48, Sti47, Sti71]. **decision** [ASSW61d]. **decision-making** [ASSW61d]. **decomposed** [BM14]. **decomposition** [Tuo78]. **defining** [BL17]. **Definite** [SS80, Sti63i]. **Density** [AAW16, PWTH18]. **Department** [PBC19]. **d'équations** [Del73]. **derivative** [HKH+22, Sti53b]. **derivative-free** [HKH+22]. **dérivées** [Sti53b]. **descent** [BKG17, BSA18, DLHY15, KBA23a, KBA23b, Man01, SRMM14, Wan23]. **Description** [BHO+67]. **descriptive** [Sti47, Sti71]. **Design** [PT12a]. **determination** [Sti44, Sti54]. **determining** [Sti55e]. **Deutscher** [Sti72a]. **development** [Zus79]. **developments** [Sti57b]. **Devices** [Bru17, RSS51b, RSS51c, RSS51a]. **Diagnosis** [PBC19]. **diagonalisation** [NMH02]. **Dictionary** [LDL+17]. **Dienste** [Sti55d]. **difference** [Del73]. **différences** [Del73]. **Differential** [Alb71, SW19, Sti63f, BS74a, BS74c, Del73, Fio05, MPS16]. **Differentialgleichungen** [Kru66]. **différentielles** [Del73]. **Digital** [Bru20a, RSS51b, RSS51c, RSS51a]. **digitale** [RSS50a, RSS50b, RSS51b, RSS51c, RSS51a, Tod52]. **dimensional** [Sti35a, Sti35b, SW65, SS68]. **dimensionalen** [Sti35a, Sti35b]. **dimensions** [Sti52a, SW65, SS68]. **direct** [Heg88b]. **directional** [Sti41b, Sti35a, Sti35b]. **directions** [Heg88b, Heg88a]. **discontinuous** [Sti41a]. **Discovery** [Bru17]. **Discrete** [Sti59c]. **discriminative** [PV08]. **diskontinuierlichen** [Sti41a]. **diskrete** [Sti59c]. **distance** [PT12b]. **Distortion** [KV09]. **Distortion-rate** [KV09]. **distributed** [KV09]. **distribution** [FL97]. **Distributionen** [Sti57a]. **Distributions** [Mar77, AGA16, KPW13, Sti57a]. **disturbance** [Sti54]. **disturbances** [Sti54]. **DM** [H.70]. **Documents** [Bru17]. **domains** [BKL17]. **Dr** [Hei79]. **d'une** [Sti53b]. **durch** [Sti53c]. **Dynamical** [TS73, Has08]. **Dynamics** [ST76, Sti75].

Early [Bru17, Sch81, Spe98, Spe99]. **Ecole** [Sti53b]. **Editors** [Cip00, DS00]. **Eduard** [Elt48, Hei79, Her64a, R.65, Woo62, Zus79, BGHS79, Her64b, Sve62, SSWK80, WKSH79, Zus79]. **Edward** [Ham64]. **Efficient** [ZTS+16, DLLL19, PV15, SA16]. **eigen** [BM14]. **eigen-decomposed** [BM14]. **Eigenvalue** [Sti63g, SZ50]. **Eigenvalues** [EGRS59b, Sti53c, Sti55e, Str61]. **Eigenwerten** [Sti53c]. **Eigenwertprobleme** [SZ50]. **einfachen** [Sti41a]. **Einführung** [ASSW61j, Sti57a, Sti61b, Sti63a, Sti65c, Sti69, Sti72b, Sti76c, Sve62, Woo62]. **einige** [Sti52c]. **Einzeldarstellungen** [Sch69, Sch70]. **electromechanical** [Sti50]. **electronic** [RSS51b, RSS51c, RSS51a, Sti55b]. **elektromechanische** [Sti50]. **elektronische** [RSS50a, RSS50b, RSS51b, RSS51c, RSS51a, Tod52, Sti55b]. **element** [FKT14]. **elementary** [Cus84]. **elimination** [Sti60]. **elliptical** [Sti53b]. **elliptique** [Sti53b]. **Embedded** [Bry17, PWTH18]. **Embedding** [PBC19, Hog82]. **Emergency** [PBC19]. **Empirical** [KFT13]. **employees** [ASSW61h]. **Endpoint** [Bry17]. **Engeli** [Str61]. **Engineer** [MS17]. **Englewood** [Par74]. **English** [Sti63b]. **enhancement** [BTD16]. **entrepreneur** [ASSW61h]. **entrepreneurs** [ASSW61h]. **Entscheidungspraxis** [ASSW61d]. **enumeration** [Sti41a]. **equation** [Sti53b, Sti53b]. **Equations** [AMI+21, SW19, Sti63f, AKAW19, AWK+20, BTD16, BS74a, BS74c, Del73, Fio05, FHR51, FHW48, HKH+22, MPS16, Sti52a, Sti53d, Sti55e, Sti55c, Sti56b, SL15, YML16, Alb71, Sti72a]. **Erfahrungen** [Sti55d]. **Ergebnisse** [Sti54]. **ERMETH** [Neu05, Rut55, Spe98, Spe99, Bru20a]. **Ermittlung** [Sti54]. **Erratum** [ASSW61a, ASSW61b]. **espace** [SW65, SS68]. **Estimation** [BB19, AGA16, AAW16, BLSM14, BM14, CR01, MKS98]. **estimators** [PV15]. **ETH** [Zus79, Sti50, Zus79]. **Euclidean** [Bry17, PT12b, Sti41a]. **euklidischer** [Sti41a]. **example** [Sti55b]. **Examples** [BS74a, Sti63c, CLS24]. **Excellence** [Lid01]. **Exchange** [Dun74]. **exhibiting** [Sti53d]. **Exhibition** [IEE03]. **expansion** [PT13]. **Experience** [Sti55d]. **Explicit** [Tuo78]. **exploiting** [CG11]. **Exploring** [BKL17]. **exponential** [Sti53c]. **Exponentialsummen** [Sti53c]. **extension** [DLLL19]. **Extensions** [BKG17]. **exterior** [Svr93]. **Extracting** [PBC19]. **Extrinsic** [HU18].

F [Sch69, Sch70]. **F.** [Sch69, Sch70]. **face** [LBK09]. **Fachgruppe** [ASSW61g]. **Factorization** [KMSR16, ZTS+16]. **Facts** [Bru17]. **family** [KBA23a, KBA23b]. **Feature** [CZNL18]. **Federal** [Sti53b]. **Fédérale** [Sti53b]. **Fehlerrechnung** [Kru66]. **Fernparallelismus** [Sti35a, Sti35b]. **field** [Sti51]. **fields** [NT78, Sti35a, Sti35b, Sti41b]. **Fig** [Sti72a]. **Fig.** [Sve62]. **Filtering** [BB20, MS17, TW07]. **Filters** [BB19]. **First** [Bru20a, Neu05, RH00]. **Fisher** [AAW16, KPW13]. **Flag** [PT13]. **Flow** [Fio01, PBC19, Fio00]. **form** [Sna85]. **forms** [FV13]. **formula** [Sna85]. **Formulation** [Fio05]. **Four** [Sti55e]. **Fourth** [Sti73a]. **fr.** [Tod52]. **Fragen** [ASSW61j]. **Fredholm** [Sti56b]. **Free** [Cus84, HKH+22]. **Freiburg**

[ASSW61h]. **French** [Del73, Sti49, Sti53b, Sti56a, SW65, Sti67, SS68]. **Friborg** [ASSW61h]. **Function** [LWW15, DSX15]. **functions** [Sti53c, Sti57a]. **Funktionen** [Sti53c, Sti57a]. **further** [Fio00].

G [H.70, Sve62, Woo62]. **gauge** [NT78]. **Gausschen** [Sti53d]. **Gaussian** [Sti53d]. **Gebiet** [Sti51]. **General** [Heg88b, Heg88a, Sti54, Sti55b]. **Généralisation** [SW65]. **généralisée** [SS68]. **Generalization** [SW65]. **generalized** [Sti57a, SS68]. **generating** [FL97]. **generic** [LBK09]. **Genetik** [ASSW61e]. **geodesic** [KV08b, KV08a]. **Geodesics** [Bry17, JLK18, dBL01, BKL17, McC85]. **Geometrie** [Sti47, Sti71, Elt48]. **Geometry** [AM14, JLK18, PT12a, PV15, Sti47, Sti71]. **German** [ASSW61b, ASSW61d, ASSW61f, ASSW61g, ASSW61h, ASSW61i, ASSW61j, BSRD$^+$55, BGS$^+$50, BSR53, BFF$^+$50, BdHF$^+$64, BFS$^+$50, CZZG$^+$70, GRDS$^+$55, HHR$^+$68, KS78, LSE$^+$58, Roj98, RDSG61, RDSW$^+$61, RSS51b, RSS51c, RSS51a, RSS68, RSS72, Sti35a, Sti35b, Sti37, Sti41a, Sti41b, Sti44, Sti47, SZ50, Sti50, Sti51, Sti52c, Sti53d, Sti53c, Sti53a, Sti54, Sti55a, Sti55b, Sti55c, Sti55d, Sti57a, Sti59c, Sti59a, Sti61a, Sti61b, SSG$^+$63, Sti63a, Sti64a, Sti65c, Sti65a, SSP$^+$66, Sti69, Sti71, Sti72a, Sti72b, Sti76c, SF79, TTB$^+$63, WRDT$^+$62, WRDG$^+$56, ZGRD$^+$59, Zus79, dHESS55]. **Geroch** [Par84]. **geschlossenen** [Sti41a, Sti44]. **Gewoehnlichen** [Kru66]. **Ginsburg** [Str61]. **Gleichungen** [Sti72a]. **Gleichungssysteme** [Sti55c]. **Global** [DW12, GXS95, MTG18, BSA18, Shi01]. **GMRES** [CLS24]. **Gradient** [CMSZ20, SLLT18, AFP19, BKG15, BKG17, BSA18, DC05, DW12, DLHY15, DLL$^+$17, DHG$^+$17, DLLL19, FA21, GXS95, Has08, HWY20, KBA23b, LLW22, NK21, QHL96, SA16, Shi01, WSH$^+$17, Wan23, WHT10, YZ13, YML16, Zha09]. **Gradients** [HS52, O'L01]. **Grassman** [Fio00, Fio01, JR05]. **Grassman/Stiefel** [JR05]. **Grassmann** [AGA16, BBHL08, CV09, Hen05, HSG$^+$14, Mar77, PT14, PWTH18, SGH$^+$17, TVC08, TVSC11]. **Grassmannians** [Svr93]. **Group** [CO03, FS92, Kro03, CR01, Sti52b, SF79]. **groupes** [Sti49]. **groups** [Cus84, Sti41a, Sti44, Sti49, Tuo78]. **Grundlehren** [Sch69, Sch70]. **Gruppen** [Sti41a, Sti41a, Sti44]. **Gruppentheoretische** [SF79]. **Guest** [DS00]. **Guide** [MS17]. **Gyroscopes** [Sti76a].

H [Alb71, H.70, Par74, Sch69, Sch70, Ste69, Str61, Tod52]. **H.** [H.70, Par74, Ste69]. **Hall** [Par74]. **Hamiltonian** [BS74c, BS74b]. **Hamming** [PT12b]. **Hamming-type** [PT12b]. **Handbook** [Sch69, Sch70]. **handling** [Sti57a]. **harmonic** [PV15]. **Held** [TS73, ST76]. **help** [Sti54]. **Helped** [CRB24]. **Herrn** [Sti55a]. **Hertelendy** [Par74]. **Hestenes** [SLLT18, AMI$^+$21, AFP19, AKAW19, AWK$^+$20, BKG15, BKG17, BKG18, BSA18, DC05, DW12, DLHY15, DLL$^+$17, DHG$^+$17, DLLL19, FA21, GXS95, HAE21, HKH$^+$22, Heg88b, Heg88a, HWY20, JBM21, KBA23a, KBA23b, Lee95, LLW22, NK21, QHL96, SA16, SRMM14, Shi01, Sny82, SL15, WSH$^+$17, Wan23, WHT10, YZ13, YML16, Zha09, ZZ12, ZZ13]. **Hestenes-Stiefel** [SLLT18]. **Hg** [Sch70]. **higher** [Sti52a]. **Hilfe** [Sti54].

Himmelsmechanik [Sti64a, Sti65a]. **History** [Bru17, RH00]. **Hochschulen** [ASSW61j]. **homotopy** [Str72]. **Hong** [IEE03]. **Hosszu** [Sti55a]. **Householder** [Sch69, Sch70]. **hybridization** [BKG15, BKG18, NK21].

IBM [CRB24]. **ICASSP** [IEE03]. **IEEE** [IEE03]. **IFIP** [ASSW61c]. **IFIP-Kongreß** [ASSW61c]. **ihre** [KS78, Sti41a, SF79]. **ihrer** [ASSW61h]. **II** [Heg88a, RSS50b, Sti63d]. **III** [RSS51b]. **illumination** [LBK09]. **im** [Sti55d]. **Image** [AMI+21, TVSC11, HKH+22, HWY20, Wan23]. **Impacting** [PBC19]. **Implementation** [CO03]. **Improved** [PT12a]. **improving** [BS74a]. **Incorporating** [CZNL18, PT12a]. **Industrie** [ASSW61j]. **Industry** [Bru20b, ASSW61j]. **Infinite** [Dun74]. **Information** [Sti59a, ASSW61d]. **Informationstechnik** [ASSW61d]. **Informationsverarbeitung** [Sti59a]. **initialization** [KMSR16]. **Institut** [ASSW61h, Tod52]. **Institute** [Spe98, Spe99, ST76, TS73, ASSW61h]. **integral** [Sti56b]. **Integration** [Kru66, BS74a, Fio05, IJW93a, IJW93b, Sti70b, Sti76b]. **International** [IEE03, Sti56a, Sti56a, Sti59a]. **Internationale** [Sti59a]. **Internationales** [ASSW61e]. **interpolate** [BKL17]. **Interpolation** [Sti53c, KMLB17]. **Intrinsic** [CV09]. **Introduction** [DS00, Ham64, Her64a, Her64b, R.65, Sti63h, Sti67, Sti72b, ASSW61j, BS74c, Sti57a, Sti61b, Sti63a, Sti65c, Sti67, Sti69, Sti76c]. **invariants** [FV13]. **Invention** [Pri10]. **Italy** [ST76, TS73]. **Iterative** [EGRS59b, FHR51, Str61]. **IV** [RSS51c].

J [Par74, Sch69, Sch70]. **Joint** [Has08, PT14, NMH02]. **Jordan** [Sti60]. **June** [Sti59a]. **Juni** [Sti59a]. **justification** [Kir80].

Kepler [KS65]. **Keplerian** [SS68, Sti70b]. **képlerien** [SS68]. **Kernel** [Sti55e, Sti58]. **Known** [Bru17, Bru20b]. **Kolmogoroff** [FKT14]. **Konferenz** [ASSW61j, Sti59a]. **Kong** [IEE03]. **Kongreß** [ASSW61c]. **Kongresse** [Sti51]. **Konrad** [Roj98, CRB24, Roj98]. **Konstanten** [Sti53c]. **Kristallographische** [Sti44]. **Kustaanheimo** [BL17, IJW93a, IJW93b, Kur77]. **Kutta** [dBL01]. **Kybernetik** [Sti55b].

L [BGHS79, Ham64, R.65, Sch69, Sch70, SSWK80]. **Laboratory** [PBC19]. **Laboratory-confirmed** [PBC19]. **Laplace** [DEF94]. **large** [DLL+17, Wan23, YZ13, YML16]. **large-scale** [DLL+17, Wan23, YZ13, YML16]. **Learning** [Fio01, FKT12, JR05, KT12, THY+19, Fio00, Fio05, FKT14, LDL+17, PV08]. **Least** [Sti63i, BKG15]. **Least-Squares** [Sti63i, BKG15]. **lectures** [Sti55e]. **Lehrbuch** [Sti47, Sti71, Elt48]. **Leitfaden** [Ste69]. **Lie** [CO03, Kro03, Sti41a, Sti44, Sti49, Sti76a]. **Lie'schen** [Sti41a, Sti44]. **like** [AKAW19]. **Likelihood** [AGA16]. **line** [DW12, JBM21]. **Linear** [HS52, O'L01, SS75, Sti59c, Sti63j, Sti63k, SS71, Sti73b, Sti76a, BKG18, FHR51, FHW48, NK21, Sti55e, Sti55c, Sti57a, Sti58, Sti60, SL15]. **lineare**

[Sti59c]. **linearer** [Sti55c, Sti57a]. **Linearization** [DEF94]. **Linei** [SS75]. **Literature** [Sti63b, Sti63l]. **Literature-References** [Sti63b, Sti63l]. **Localized** [KY19]. **location** [CR01]. **Logarithm** [Zim17]. **Logic** [Pri10]. **London** [R.65]. **Long** [ST76]. **Long-Time** [ST76]. **Lösung** [Sti55c]. **Low** [Kro03, YGG15]. **low-rank** [YGG15]. **Ludgate** [CRB24].

M [Sti55a, Sti72a, Str61]. **Machine** [KT12, Sti50, Sti53b]. **Machines** [Pri10, Roj98, RSS51b, RSS51c, RSS51a, Sti55d]. **made** [MPS16]. **Madison** [Lan59]. **Magnus** [Lee95]. **making** [ASSW61d]. **management** [ASSW61f]. **Manifold** [BB19, BB20, Bry17, CZNL18, CO03, CMSZ20, Fio01, HSG+15, KT12, KFT13, Kro03, KY19, LDT+19, MS17, MTG18, PBC19, SR15, THY+19, TW07, ZTS+16, Zim17, dBL01, BTD16, BLSM14, BM14, CG11, CV19, DSX15, EP99, FL97, Fio05, FKT12, FKT14, IKAH17, KTF12, KMSR16, KV08b, KV08a, LDL+17, LDL03, Man01, MPS16, NMH02, PV15, PV08, PT12b]. **Manifolds** [AGMP99, AM14, BBHL08, BS17, HU18, JLK18, LWW15, Mar77, SGH+17, SW19, TVSC11, AGA16, AAW16, BKL17, CV09, CR01, Cus84, FB12, GL70, Has08, Hen05, HSG+14, KMLB17, KV09, KPW13, MKS98, McC85, Sti35a, Sti35b, Str72, TVC08, Usc08, YGG15]. **manipulation** [BS74b]. **Mannigfaltigkeiten** [Sti35a, Sti35b]. **map** [FKT12]. **mapping** [Sti56b]. **maps** [FKT14]. **mathematical** [ASSW61j, Sti57a, Sti72a]. **Mathematicians** [Sti53a]. **Mathematics** [Sti61b, Sti63a, Sti63h, Sti65c, Sti67, Sti69, Sti76c, Sti51, Ham64, Her64a, Her64b, R.65]. **Mathematik** [Ste69, Tod52, Sti51, Sti61b, Sti63a, Sti65c, Sti69, Sti76c, Sve62, Woo62]. **Mathematikerkongress** [Sti53a]. **mathématique** [Sti67]. **mathematischen** [Sch69, Sch70, Sti72a]. **mathematischer** [ASSW61j]. **mathematisches** [Sti57a]. **Matrices** [BL99, SRS73, RSS68, RSS72, Par74]. **Matrix** [KMSR16, LWW15, RSS68, ZTS+16, Zim17, AGA16, AAW16]. **Matrix-Algebraic** [Zim17]. **matrix-Fisher** [AAW16]. **Matrizen** [RSS68, Ste69, H.70, RSS68, RSS72, Alb71]. **Matrizen-Numerik** [RSS68]. **Maximization** [LWW15, Usc08]. **maximum** [AGA16]. **mean** [CV09]. **Means** [CZNL18]. **Measurements** [Lid01]. **Mechanics** [Sti64a, Sti76a, SS75, Sti65a, Sti70a, SS71, Sti73a]. **Mechanik** [Ste69]. **Medizin** [ASSW61e]. **mekhanika** [SS75]. **memory** [Zus79]. **memoryless** [BKG18]. **message** [Sti55a]. **Method** [AMI+21, CMSZ20, Dun74, HAE21, Kro03, SS80, THY+19, AFP19, AKAW19, AWK+20, BKG18, BSA18, DC05, DW12, DLHY15, DLLL19, FA21, GXS95, HKH+22, Jai88, KTF12, KBA23a, KBA23b, Kir80, LDL03, NK21, QHL96, SA16, SRMM14, Shi01, Sny82, Sti55c, SB69, SL15, WHT10, Zha09, ZZ12, ZZ13]. **Methoden** [ASSW61e, ASSW61f, ASSW61j, Sti52c, Sti65a, SF79, KS78]. **méthodes** [Del73]. **Methods** [Alb71, CO03, EGRS59b, FS92, HS52, O'L01, SW19, Sti64b, dBL01, ASSW61f, ASSW61j, BKG15, BKG17, Del73, DLL+17, DHG+17, FL97, FHR51, MPS16, Sti52c, Sti53e, Sti59d, Sti65a, Sti65b, SS71, SF79, Str61, KS78]. **Metric**

[Zim17]. **MIMO** [PT14]. **Minimal** [BTD16]. **minimization** [CG11, FB12]. **minimizations** [YML16]. **minimizing** [DSX15]. **Minor** [JR05, Has08]. **Mitarbeiter** [ASSW61h]. **Mitchell** [Alb71]. **Mitteilung** [Sti55a]. **Mitteilungen** [Tod52]. **Mixed** [FKT14, DC05]. **mixture** [BM14]. **mobile** [SW65]. **Model** [LDT+19, AAW16]. **models** [BTD16, BM14, CR01]. **modern** [ASSW61j, ASSW61f]. **Moderne** [ASSW61f]. **moderner** [ASSW61j]. **modification** [Jai88, JBM21, SA16, SRMM14]. **Modifications** [HAE21]. **Modified** [Man01, AFP19, BSA18, BS74c, DW12, Del73, DLHY15, DLL+17, HWY20, KBA23b, KMLB17, LLW22, QHL96, Shi01, SL15, WHT10, YZ13, YML16, ZZ13]. **modifiées** [Del73]. **Möglichkeiten** [ASSW61h]. **Monotone** [AMI+21, AKAW19, AWK+20]. **Monte** [BLSM14]. **Monte-Carlo** [BLSM14]. **Most** [PBC19]. **Motion** [MKS98, KS65, Sti54, SW65, SS68, SS71]. **mouvement** [SW65, SS68]. **movement** [Sti41a]. **Mr.** [Sti55a]. **Multi** [HSG+14, SGH+17]. **Multi-Resolution** [SGH+17, HSG+14]. **Multicasting** [SGH+17]. **multicategory** [PV08]. **multidimensional** [PV15].

N [KV09, Par74]. **Nagumo** [FKT14]. **Nagumo-type** [FKT14]. **Name** [Cip00]. **NATO** [ST76, TS73]. **Natural** [NT78, SZ50]. **Natürliche** [SZ50]. **Navier** [BTD16]. **naya** [SS75]. **NBS** [Lid01]. **NBS/NIST** [Lid01]. **near** [Sti76b]. **near-parabolic** [Sti76b]. **nebesnaya** [SS75]. **negative** [ZTS+16]. **net** [FL97]. **Neuere** [Sti65a]. **Neues** [Sti61a]. **Neural** [JR05]. **Newer** [Sti65a]. **Newton** [KBA23a, LDL03, Man01]. **NIST** [Lid01]. **No** [Bru20b, Tod52]. **nombres** [Sti49]. **Non** [KT12, ZTS+16]. **Non-convex** [KT12]. **Non-negative** [ZTS+16]. **nonclassical** [Kur77]. **nonconvex** [ZZ13]. **Nonlinear** [AMI+21, BB19, Sti63m, YGG15, AKAW19, AWK+20, DW12, HKH+22, SA16, Sny82, SL15, YML16, Zha09]. **nonlinearly** [Jai88]. **Nonmonotone** [FB12, DLL+17]. **Nonnegative** [KMSR16]. **Nonsmooth** [CMSZ20, YML16]. **normal** [Sti53d]. **Normalgleichungen** [Sti53d]. **normalizing** [KPW13]. **Note** [Sti60, ZZ12]. **Notes** [FHW48]. **NT** [FL97]. **NT-net** [FL97]. **Numbers** [Sti76a, Sti49]. **Numerical** [Ham64, Her64a, Her64b, MPS16, R.65, SRS73, SW19, Sti59a, Sti59d, Sti61b, Sti63a, Sti63h, Sti65c, Sti67, Sti69, Sti76c, BRS63, BS74a, Lan59, Sti55e, Sti58, Sti61a, Sti65a, Sti70b, SS71, Sti76b, Par74]. **numerics** [RSS68, RSS68, RSS72]. **Numerik** [Ste69, H.70, RSS68, RSS72, Alb71]. **numérique** [Sti67]. **numerische** [Sti59a, Sti61a, Sti61b, Sti63a, Sti65c, Sti65a, Sti69, Sti76c, Sve62, Woo62]. **Numerischen** [Kru66].

Oberwolfach [Sti73a, Sti70a]. **obigen** [Sti55a]. **observation** [BLSM14]. **ODEs** [dBL01]. **ohne** [Sti53d]. **Old** [Sti64b, Sti61a]. **Oliver** [Sch70]. **Olver** [Sch69]. **Operation** [Spe98, Spe99, Svr93]. **operational** [ASSW61f]. **Operations** [ASSW61g, ASSW61h, Pri10, ASSW61i]. **Operator** [AMI+21]. **Optimal** [SLLT18, AFP19]. **optimisation** [Man01]. **Optimization**

[CMSZ20, HAE21, KT12, LDT+19, BM14, KMSR16, KY19, LDL+17, MKS98, NK21, US11, Wan23, YZ13, Zha09, ZZ13]. **orbit** [PT13]. **orbits** [Sti70b, Sti76b]. **order** [BTD16, BKL17, Del73]. **ordre** [Del73]. **orientations** [Deg92]. **original** [ZZ12]. **Orthogonal** [BL99, BM14, ZTS+16, Usc08]. **orthogonally** [Man01]. **oscillators** [Jai88]. **Österreichische** [ASSW61g]. **Österreichischer** [Sti53a].

P [Par74, Ham64]. **packing** [Hen05]. **Paper** [CRB24]. **parabolic** [Sti76b]. **parallel** [SS80]. **parallelism** [Sti35a, Sti35b]. **parameter** [AWK+20, BM14]. **parameters** [CR01]. **Parametrization** [KY19]. **Paris** [Sti59a]. **Part** [Sch70, Man01]. **Partial** [Alb71, Sti53b]. **Particle** [BB19, BB20, MS17]. **partielles** [Sti53b]. **Patent** [CRB24]. **path** [IJW93a, IJW93b]. **Patient** [PBC19]. **PCA** [THY+19]. **Percy** [CRB24]. **Perturbation** [KS65, KS78]. **perturbé** [SS68]. **Perturbed** [Sti73b, Del73, SS68, SS71]. **perturbées** [Del73]. **PF** [KV09]. **Phase** [Sti65b]. **physics** [Sti72a]. **Physik** [Sti72a]. **Pioneers** [Lee95]. **Planen** [ASSW61j]. **planetary** [Sti54]. **Planetenbewegung** [Sti54]. **Planning** [Spe98, Spe99, ASSW61j]. **plethysm** [Svr93]. **Pohlke** [Sti37]. **Point** [HU18, Sny82]. **Polak** [BKG17]. **Polyak** [BKG17]. **polynomial** [Sti65b]. **polynomials** [Sti55e, Sti58]. **Polytechnical** [Sti53b]. **Polytechnique** [Sti53b]. **posedness** [Usc08]. **Positive** [SS80]. **possibilities** [ASSW61h]. **potential** [Sti56b]. **pour** [Del73, SW65]. **power** [CG11]. **powers** [Svr93]. **Pp** [Elt48, R.65, Woo62, H.70, Par74, Str61, Tod52]. **pp.** [Her64a]. **practice** [ASSW61d]. **Predictions** [ST76]. **Predictive** [SR15]. **Preface** [KRS82, SSK76, SSK80]. **Prentice** [Par74]. **Prentice-Hall** [Par74]. **Preparation** [Bru20a]. **Presentations** [Her64b]. **Press** [Ham64, Her64a, R.65]. **Price** [H.70]. **Principal** [JR05, Has08]. **Principal/Minor** [JR05]. **Problem** [BL99, Sti59b, Sti63i, Sti64b, Sti73b, CZ15, EP99, SW65]. **Problème** [SW65]. **Problems** [EGRS59b, HAE21, Sti63g, DLL+17, KMLB17, Sny82, SZ50, Sti52b, Sti56b, Usc08, Wan23, Str61]. **procedure** [IKAH17]. **procedures** [ASSW61b]. **Proceedings** [SSK80, ST76, TS73, IEE03, SSK76, Lan59]. **Processing** [IEE03, Sti59a, AWK+20]. **Procrustes** [BL99, CZ15, EP99]. **Product** [LWW15, PT14, Usc08]. **Products** [BBHL08, KPW13, Tuo78]. **Prof** [Hei79]. **program** [Sti50, RSS51b, RSS51c, RSS51a]. **program-controlled** [Sti50, RSS51b, RSS51c, RSS51a]. **programmgesteuerte** [Sti50, RSS50a, RSS50b, RSS51b, RSS51c, RSS51a, Tod52]. **Programmieren** [ASSW61b]. **Programming** [Pri10, Rut55, Sti63k, ASSW61b, Sti60]. **Projected** [SLLT18]. **projection** [AKAW19, AWK+20, BTD16, IKAH17, LLW22, PV08, SL15]. **projection-based** [BTD16]. **Projective** [AGMP99, Str72, Sti41b]. **projektiven** [Sti41b]. **properties** [SRMM14, ZZ12]. **property** [AFP19, BKG17, BSA18, SA16]. **Proximal** [CMSZ20]. **pseudo** [FKT12]. **pseudo-retraction** [FKT12]. **Publications** [Her64b, Lid01]. **pure** [Sti51].

quadratic [ASSW61b, DSX15]. **quadratischen** [ASSW61b]. **Quadratur** [Sti61a]. **quadrature** [BRS63, Sti61a]. **Quantization** [PT14, SR15, IJW93a, IJW93b]. **Quasi** [JLK18, BKL17, KBA23a]. **Quasi-Geodesics** [JLK18, BKL17]. **quasi-Newton** [KBA23a]. **questions** [ASSW61j]. **Quotient** [BS17, LBK09].

R [Alb71, H.70, Lee95, Par74, Ste69]. **rank** [US11, YGG15]. **Rapidly** [SLLT18]. **Rare** [Bru17]. **rate** [KV09, SL15]. **Räume** [Sti41a]. **Räumen** [Sti41b]. **Real** [HU18, Deg92, KV08b, Sti41b]. **Rechenautomaten** [Sti55b, Sti55d, Sti55d]. **Rechengeräte** [RSS50a, RSS50b, RSS51b, RSS51c, RSS51a, Tod52]. **Rechenmaschine** [Sti50]. **Rechenmaschinen** [Roj98, RSS50a, RSS50b, RSS51b, RSS51c, RSS51a, Tod52]. **Rechentechniken** [ASSW61j]. **Recognition** [TVSC11, LBK09]. **recursion** [Heg88b, Heg88a]. **recursions** [Heg88b, Heg88a]. **reduced** [BTD16, US11]. **reellen** [Sti41b]. **References** [Sti63b, Sti63l]. **Refined** [EGRS59b, Str61]. **Regelungen** [Sti57a]. **regression** [CR01, US11]. **regular** [SS75, SS71]. **Régularisation** [SS68, SW65]. **Regularization** [Kur77, Sti73b, KS65, SW65, SS68]. **regulyarnaya** [SS75]. **reinen** [Sti51]. **relation** [Sti41a]. **relaxation** [Sti52c, Sti53e, Sti57b, Sti55c]. **Relaxationsmethoden** [Sti55c]. **Relaxationsrechnung** [Sti52c]. **Relaxed** [CZNL18]. **Remark** [Sti75]. **Remarks** [Sti70b, Sti76b]. **remote** [Sti35a, Sti35b]. **Renaissance** [Sti64a]. **Representation** [LDT$^+$19, LDL$^+$17, YGG15]. **representations** [Tuo78]. **Research** [ASSW61h, ASSW61i, ASSW61g]. **Resolution** [SGH$^+$17, HSG$^+$14, Del73, Sti53b]. **responsible** [ASSW61h]. **restart** [SA16]. **Restoration** [AMI$^+$21, HKH$^+$22, HWY20, Wan23]. **restreint** [SW65]. **Restricted** [SW65]. **results** [Fio00, Sti54]. **retraction** [FKT12]. **retrieval** [PV15]. **reverse** [Heg88a]. **Review** [Elt48, H.70, Ham64, Her64a, Par74, R.65, Sch69, Sch70, Ste69, Str61, Sve62, Tod52, Woo62]. **Reviews** [BGS$^+$50, BFF$^+$50, BdHF$^+$64, BFS$^+$50, CZZG$^+$70, GRDS$^+$55, HHR$^+$68, RDSG61, RDSW$^+$61, SSP$^+$66, TTB$^+$63, WRDT$^+$62, ZGRD$^+$59, dHESS55, Alb71, BSRD$^+$55, BSR53, LSE$^+$58, SSG$^+$63, WRDG$^+$56]. **Rheinbold** [Her64a]. **Rheinboldt** [Her64b]. **Ribière** [BKG17]. **Ribière-Polyak** [BKG17]. **Richtungsfelder** [Sti41b, Sti35a, Sti35b]. **Riemann** [Sti52a]. **Riemannian** [AM14, Zim17]. **rigorous** [Kir80]. **Robots** [SLLT18]. **Robust** [PV08, SLLT18]. **role** [Zus79]. **Rolle** [Zus79]. **rotation** [BTD16]. **Runge** [dBL01]. **Russian** [SS75]. **Ruthishauser** [Tod52]. **Rutishauser** [Alb71, H.70, Par74, Sch69, Sch70, Ste69, Str61].

S [Sch69, Sch70, Sti72a, Sve62]. **Saddlepoint** [KPW13]. **Salzburg** [Sti53a]. **Samelson** [Sch69, Sch70]. **Satz** [Sti37, Sti41b]. **scale** [DLL$^+$17, Wan23, YZ13, YML16]. **Scarcely** [Bru17]. **Schwarz** [Alb71, H.70, Par74, Ste69, Sti53c]. **Schwarzschen** [Sti53c]. **Schweiz**

[ASSW61h]. **Science** [Pri10]. **Scientific** [ASSW61j]. **search** [DW12, JBM21]. **secant** [Zha09]. **second** [Del73]. **Section** [ASSW61g]. **Selected** [Lid01]. **Selection** [CZNL18, PT12a]. **Self** [EGRS59b, Sti59b, Str61]. **Self-Adjoint** [EGRS59b, Sti59b, Str61]. **Seminar** [ASSW61e]. **separation** [LDL03]. **September** [Sti53a]. **Serre** [Sna85]. **service** [Sti55d]. **Set** [Dun74]. **sets** [FB12]. **SGF** [Fio00]. **shift** [CV09]. **Signal** [IEE03, AWK+20]. **signals** [LDL03]. **simple** [MPS16, Sti41a]. **simultaneous** [FHW48]. **Smooth** [KY19, BKL17]. **Solution** [EGRS59b, Del73, FHW48, Sti52b, Sti53b, Str61]. **solve** [KMLB17]. **Solving** [HAE21, HS52, O'L01, SS80, Sti64b, FHR51, Sny82, Sti55e, Sti55c, Sti56b]. **Some** [DHG+17, FL97, HWY20, Rut55, Sti53e, Hog82, Par84, Sti52c]. **son** [Sti53b]. **source** [KV09]. **sourceless** [NT78]. **Space** [Bry17, HSG+15, SW65, SS68]. **Space-Time** [HSG+15]. **Spaces** [BBHL08, BS17, LBK09, Sti41a, Sti41b]. **Sparse** [LDT+19, THY+19, US11, LDL+17]. **special** [Sti53e, Sti54]. **spectral** [AWK+20, FA21, KBA23a, WSH+17, Wan23]. **Speech** [IEE03]. **Speiser** [Tod52]. **speziellen** [Sti54]. **Sphere** [Hen05]. **Sphere-packing** [Hen05]. **spheres** [KPW13]. **Spherically** [PWTH18]. **spinor** [KS65]. **Squares** [Sti63i, BKG15, Sti75]. **Stabilization** [BS74c, BS74b, SB69, BTD16, Kir80]. **Stabilized** [THY+19]. **Standards** [Lid01]. **State** [BB19]. **Station** [PT12a]. **Statistical** [TVC08, TVSC11]. **Statistics** [CV19]. **steepest** [Man01]. **Stiefel** [Alb71, Elt48, H.70, Ham64, Hei79, Her64a, Her64b, Par74, R.65, Sch69, Sch70, Ste69, Str61, SLLT18, Sve62, SSWK80, Tod52, Woo62, AMI+21, AGA16, AAW16, AFP19, AGMP99, AM14, AKAW19, AWK+20, BKG15, BKG17, BKG18, BBHL08, BTD16, BSA18, BS17, BKL17, BGHS79, BL99, BB19, BB20, BLSM14, Bra89, BL17, BM14, Bry17, CG11, CZNL18, CZ15, CO03, CV09, CV19, CR01, CMSZ20, Cus84, DC05, DW12, Deg92, Del73, DEF94, DSX15, DLHY15, DLL+17, DHG+17, DLLL19, Dun74, EP99, FL97, FA21, Fio00, Fio01, Fio05, FKT12, FKT14, FV13, FB12, GL70, GXS95, HAE21, Has08, HKH+22, Heg88b, Heg88a, Hen05, Hog82, HWY20, HU18, HSG+14, HSG+15, IJW93a, IJW93b, IKAH17, Jai88, JR05, JBM21, JLK18, KT12, KTF12, KFT13, KBA23a, KBA23b]. **Stiefel** [Kir80, KMSR16, KMLB17, KV08b, KV08a, KV09, Kro03, KPW13, KY19, Kur77, LDL+17, LDT+19, LLW22, LWW15, LDL03, LBK09, MKS98, Man01, Mar77, MPS16, MS17, MTG18, McC85, NK21, NMH02, NT78, PV15, Par84, PBC19, PV08, PT12a, PT12b, PT13, PT14, PWTH18, QHL96, SS80, SA16, SR15, SGH+17, SRMM14, Shi01, Sna85, Sny82, SW19, Str72, SL15, Svr93, THY+19, TW07, TVC08, TVSC11, US11, Usc08, WKSH79, WSH+17, Wan23, WHT10, YGG15, YZ13, YML16, Zha09, ZZ12, ZTS+16, ZZ13, Zim17, Zus79, dBL01]. **Stiefel-like** [AKAW19]. **Stiefel-Whitney** [Svr93]. **Stochastic** [SW19, MPS16]. **Stokes** [BTD16]. **Störungen** [Sti54]. **Störungsrechnung** [KS78, Sti54]. **Strategie** [Sti55c]. **strategy** [Sti55c]. **strong** [JBM21, ZZ13]. **Study** [ST76, TS73, CR01]. **Stuttgart** [H.70, Str61, Sve62, Woo62]. **Sub** [AM14, CZ15]. **Sub-Riemannian** [AM14]. **sub-Stiefel** [CZ15].

Submanifold [JR05]. **Subspace** [BB20, BTD16]. **sufficient** [BKG17, BSA18, DLHY15, KBA23b]. **Suisse** [Sti53b]. **sum** [CG11]. **sum-transmit** [CG11]. **sums** [Sti53c, Sti75]. **SVD** [KMSR16]. **Swiss** [Bru20a, Bru20b, Tod52, Neu05, Sti53b]. **Switzerland** [Sti53b, ASSW61h, Bru17, Sch81]. **Symmetric** [Par74, SRS73, RSS68, RSS72, Sna85, Svr93]. **Symmetrischer** [Alb71, H.70, RSS68, RSS72, Ste69]. **symplectic** [Tuo78]. **Symposium** [Lan59]. **Synchronization** [MTG18]. **Systems** [HS52, O'L01, SS80, dBL01, Has08, Sti55c].

tabellierten [Sti53c]. **Tables** [Sti63d]. **tabulated** [Sti53c]. **Tagung** [ASSW61h]. **Tchebycheff** [Sti59d, Sti60, Sti64b]. **Technik** [Sti55d]. **Techniken** [ASSW61f]. **Technique** [KY19, BKG18, Sti53e]. **Techniques** [Rut55, ASSW61f, ASSW61j, Sti57b]. **Technology** [Lid01, ASSW61d, Sti55d]. **tensor** [Tuo78, Usc08]. **Term** [AMI+21, BSA18, DHG+17, DLLL19, FA21, HKH+22, KBA23b, Wan23, ZZ12]. **terms** [LLW22]. **test** [IKAH17]. **Teubner** [H.70, Sve62, Woo62]. **Textbook** [Sti47, Sti71]. **Th** [Str61]. **Their** [FS92, Mar77, ASSW61h, FL97, KS78, PT13, Sti41a, Sti55e, Sti58, SF79]. **theorem** [Sti37, Sti41b]. **theorems** [Par84]. **Theoretical** [FS92, SF79]. **Theorie** [Sti57a]. **Theory** [CV19, Fio01, Sti73b, Sti76a, GL70, KS65, Sti56b, Sti57a, SS71]. **There** [Bru20b]. **Three** [AMI+21, BSA18, DHG+17, DLLL19, FA21, HKH+22, KBA23b, LLW22, SW65, SS68, Wan23, ZZ12]. **three-dimensional** [SW65, SS68]. **Three-Term** [AMI+21, BSA18, DHG+17, DLLL19, FA21, HKH+22, KBA23b, Wan23, ZZ12]. **Thwart** [CRB24]. **Time** [HSG+15, ST76]. **tool** [Sti57a]. **Top** [Cip00, DS00]. **Topological** [IJW93a, IJW93b]. **Topology** [BS17]. **Trace** [LWW15]. **Tracking** [BB20]. **tradeoff** [KV09]. **Transform** [SW19, FKT12]. **transformation** [BL17, IJW93a, IJW93b, SS68]. **transformations** [BS74a, Kur77]. **Translated** [Her64a, Par74]. **transmit** [CG11]. **trois** [SW65, SS68]. **Tschebyscheff** [Sti59c]. **Tschebyscheff-Approximationen** [Sti59c]. **Two** [Sti52b, Sti73b, WSH+17, Sny82, SS71]. **Two-Body** [Sti73b, SS71]. **two-point** [Sny82]. **Type** [AMI+21, dBL01, DLL+17, FKT14, HKH+22, Heg88b, Heg88a, PT12b, Sny82, Sti53b].

Unconstrained [HAE21, DLL+17, NK21, Wan23]. **understanding** [CLS24]. **uniform** [FL97]. **uniformity** [IKAH17]. **uniformly** [KV09]. **Universität** [ASSW61h]. **universities** [ASSW61j]. **University** [ASSW61h, Sti53b]. **Unknown** [Bru17]. **Unternehmensforschung** [ASSW61g, ASSW61i]. **Unternehmer** [ASSW61h]. **Unternehmer"** [ASSW61h]. **Unternehmungen** [ASSW61j]. **Using** [BB19, AAW16, CR01, Has08, LDL03].

Value [EGRS59b, Sti59b, Sny82, Sti52b, Str61]. **variable** [US11]. **variational** [Sti56b]. **variety** [Deg92]. **vector** [BL17]. **verallgemeinerten** [Sti57a]. **verantwortlichen** [ASSW61h]. **Verfahren** [ASSW61b]. **Verlag** [H.70, Sti72a, Str61]. **Verlagsgesellschaft** [Sve62]. **versions** [Zha09]. **via** [AGA16, CZNL18, IJW93a, IJW93b, SW19, Sti76a, US11]. **Video** [TVSC11]. **Video-Based** [TVSC11]. **View** [HU18]. **vision** [CZ15, MKS98, TVC08]. **Vol** [Sch69, Sch70]. **Volume** [KV08b, KV08a, PT12b]. **vom** [Sti53a]. **vs** [DEF94].

W [Sch70, Sti72a]. **Walking** [SLLT18]. **Weight** [Fio01]. **Well** [Bru20b, Usc08]. **Well-Known** [Bru20b]. **Well-posedness** [Usc08]. **Werkzeug** [Sti57a]. **Werner** [Her64a, Her64b]. **Whitney** [FV13, Sna85, Svr93]. **Wissenschaften** [Sch69, Sch70, Sti72a]. **Wissenschaftliche** [ASSW61j]. **without** [Sti53d]. **Wladimirov** [Sti72a]. **Wolfe** [JBM21].

x [Ham64, Her64a]. **xi** [Par74].

Years [Sch81, Spe98, Spe99]. **York** [Ham64, Her64a, R.65]. **Yuan** [BKG15, DC05, NK21].

Z4 [Spe98, Spe99, Sti53b, Sti55d]. **Zum** [Sti37]. **zur** [Sti53c, Sti55a, Sti55b, Sti55c, Sti57a, Kru66, Sti53c]. **Zurich** [Sti53b, Sti53b]. **Zuse** [Sti55d, CRB24, Roj98, Sti55d]. **Zuse-calculator** [Sti55d]. **Zuse-Rechenautomaten** [Sti55d]. **zwischen** [Sti41a].

References

Ali:2016:DES

[AAW16] M. Ali, M. Antolovich, and B. Wang. Density estimation on Stiefel manifolds using matrix-Fisher model. In *2016 9th International Congress on Image and Signal Processing, BioMedical Engineering and Informatics (CISP-BMEI)*, pages 66–71. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016.

Amini:2019:MHS

[AFP19] Keyvan Amini, Parvaneh Faramarzi, and Nasrin Pirfalah. A modified Hestenes–Stiefel conjugate gradient method with an optimal property. *Optimization Methods and Software*, 34(4):770–782, 2019. ISSN 1026-7670 (print), 1055-6788 (electronic).

Ali:2016:CSG

[AGA16] M. Ali, J. Gao, and M. Antolovich. Classification on Stiefel and Grassmann manifolds via maximum likelihood estimation of matrix distributions. In *2016 International Joint Conference on Neural Networks (IJCNN)*, pages 3751–3757. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016.

Astey:1999:CCP

[AGMP99] L. Astey, S. Gitler, E. Micha, and G. Pastor. Cohomology of complex projective Stiefel manifolds. *Canadian Journal of Mathematics = Journal canadien de mathématiques*, 51(5):897–914, October 1999. CODEN CJMAAB. ISSN 0008-414X (print), 1496-4279 (electronic).

Awwal:2019:PHS

[AKAW19] Aliyu Muhammed Awwal, Poom Kumam, Auwal Bala Abubakar, and Adamu Wakili. A projection Hestenes–Stiefel-like method for monotone nonlinear equations with convex constraints. *Thai Journal of Mathematics*, 17:181–200, 2019. ISSN 1686-0209.

Albaseny:1971:BRN

[Alb71] E. L. Albaseny. Book reviews: *Numerik Symmetrischer Matrizen*, by H. Rutishauser, E. Stiefel and H. Schwarz, 1968; *Computational Methods in Partial Differential Equations*, by A. R. Mitchell, 1969. *The Computer Journal*, 14(4):374, November 1971. CODEN CMPJA6. ISSN 0010-4620 (print), 1460-2067 (electronic).

Autenried:2014:SRG

[AM14] Christian Autenried and Irina Markina. Sub-Riemannian geometry of Stiefel manifolds. *SIAM Journal on Control and Optimization*, 52(2):939–959, ???? 2014. CODEN SJCODC. ISSN 0363-0129 (print), 1095-7138 (electronic).

Abubakar:2021:NTT

[AMI+21] Auwal Bala Abubakar, Kanikar Muangchoo, Abdulkarim Hassan Ibrahim, Abubakar Bakoji Muhammad, Lateef Olakunle Jolaoso, and Kazeem Olalekan Aremu. A new three-term Hestenes–Stiefel type method for nonlinear monotone operator equations and image restoration. *IEEE Access*, 9:18262–18277, 2021. ISSN 2169-3536.

Adam:1961:E

[ASSW61a] A. Adam, S. Sagoroff, E. Stiefel, and A. Walther. Erratum. In *Unternehmensforschung. (German) [Operations research]* [ASSW61i], page 60. ISBN 3-662-38583-X (print), 3-662-39426-X. LCCN HD30.23. URL `http://link.springer.com/chapter/10.1007/978-3-662-39426-7_12`.

Adam:1961:EAV

[ASSW61b] A. Adam, S. Sagoroff, E. Stiefel, and A. Walther. Erratum to: Abgekürzte Verfahren beim quadratischen Programmieren. (German) [erratum to: Abbreviated procedures in quadratic programming]. In *Unternehmensforschung. (German) [Operations research]* [ASSW61i], page ?? ISBN 3-662-38583-X (print), 3-662-39426-X. LCCN HD30.23. URL `http://link.springer.com/chapter/10.1007/978-3-662-39426-7_42`.

Adam:1961:IK

[ASSW61c] A. Adam, S. Sagoroff, E. Stiefel, and A. Walther. IFIP-Kongreß 1962. In *Unternehmensforschung. (German) [Operations research]* [ASSW61i], pages 119–120. ISBN 3-662-38583-X (print), 3-662-39426-X. LCCN HD30.23. URL `http://link.springer.com/chapter/10.1007/978-3-662-39426-7_20`.

Adam:1961:IEG

[ASSW61d] A. Adam, S. Sagoroff, E. Stiefel, and A. Walther. Informationstechnik und Entscheidungspraxis. (German) [Information technology and decision-making practice]. In *Unternehmensforschung. (German) [Operations research]* [ASSW61i], pages 55–56. ISBN 3-662-38583-X (print), 3-662-39426-X. LCCN HD30.23. URL `http://link.springer.com/chapter/10.1007/978-3-662-39426-7_8`.

Adam:1961:ISB

[ASSW61e] A. Adam, S. Sagoroff, E. Stiefel, and A. Walther. Internationales seminar über biometrische methoden in der medizin und genetik. In *Unternehmensforschung. (German) [Operations research]* [ASSW61i], page 119. ISBN 3-662-38583-X (print), 3-662-39426-X. LCCN HD30.23. URL `http://link.springer.com/chapter/10.1007/978-3-662-39426-7_19`.

Adam:1961:MMT

[ASSW61f] A. Adam, S. Sagoroff, E. Stiefel, and A. Walther. Moderne Methoden und Techniken in der Betriebsführung. (Ger-

man) [Modern methods and techniques in operational management]. In *Unternehmensforschung. (German) [Operations research]* [ASSW61i], page 56. ISBN 3-662-38583-X (print), 3-662-39426-X. LCCN HD30.23. URL `http://link.springer.com/chapter/10.1007/978-3-662-39426-7_9`.

Adam:1961:OFU

[ASSW61g] A. Adam, S. Sagoroff, E. Stiefel, and A. Walther. Österreichische Fachgruppe für Unternehmensforschung. (German) [Austrian Section for Operations Research]. In *Unternehmensforschung. (German) [Operations research]* [ASSW61i], page 119. ISBN 3-662-38583-X (print), 3-662-39426-X. LCCN HD30.23. URL `http://link.springer.com/chapter/10.1007/978-3-662-39426-7_18`.

Adam:1961:TUI

[ASSW61h] A. Adam, S. Sagoroff, E. Stiefel, and A. Walther. Tagung der Unternehmer und ihrer verantwortlichen Mitarbeiter am Institut für Automation und Operations Research der Universität Freiburg, Schweiz, über „Möglichkeiten des Operations Research für den Unternehmer“. (German) [Conference of entrepreneurs and their responsible employees at the Institute for Automation and Operations Research at the University of Friborg, Switzerland, “possibilities of operations research for the entrepreneur”]. In *Unternehmensforschung. (German) [Operations research]* [ASSW61i], page 234. ISBN 3-662-38583-X (print), 3-662-39426-X. LCCN HD30.23. URL `http://link.springer.com/chapter/10.1007/978-3-662-39426-7_35`.

Adam:1961:UGO

[ASSW61i] A. Adam, S. Sagoroff, E. Stiefel, and A. Walther, editors. *Unternehmensforschung. (German) [Operations research]*, volume 5. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1961. ISBN 3-662-38583-X (print), 3-662-39426-X. iv + 237 pp. LCCN HD30.23. URL `http://link.springer.com/book/10.1007/978-3-662-39426-7`.

Adam:1961:WKH

[ASSW61j] A. Adam, S. Sagoroff, E. Stiefel, and A. Walther. Wissenschaftliche Konferenz der Hochschulen über die Fragen der Einführung mathematischer Methoden und moderner Rechentechniken in das Planen von Unternehmungen der chemischen Industrie. (German) [Scientific conference of universities on the questions of the introduction of mathematical methods and modern

computing techniques in the planning of companies in the chemical industry]. In *Unternehmensforschung. (German) [Operations research]* [ASSW61i], pages 53–55. ISBN 3-662-38583-X (print), 3-662-39426-X. LCCN HD30.23. URL `http://link.springer.com/chapter/10.1007/978-3-662-39426-7_7`.

Awwal:2020:PHS

[AWK+20] Aliyu Muhammed Awwal, Lin Wang, Poom Kumam, Hassan Mohammad, and Wiboonsak Watthayu. A projection Hestenes–Stiefel method with spectral parameter for nonlinear monotone equations and signal processing. *Mathematical & Computational Applications*, 25(2):Paper No. 27, 29, 2020. ISSN 1300-686X.

Bordin:2019:NSE

[BB19] C. J. Bordin and M. G. S. Bruno. Nonlinear state estimation using particle filters on the Stiefel manifold. In *ICASSP 2019 - 2019 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 5042–5046. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Bordin:2020:PFC

[BB20] C. J. Bordin and M. G. S. Bruno. Particle filtering on the complex Stiefel manifold with application to subspace tracking. In *ICASSP 2020 - 2020 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 5485–5489. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Bachoc:2008:BCP

[BBHL08] C. Bachoc, Y. Ben-Haim, and S. Litsyn. Bounds for codes in products of spaces, Grassmann, and Stiefel manifolds. *IEEE Transactions on Information Theory*, 54(3):1024–1035, 2008. CODEN IETTAW. ISSN 0018-9448 (print), 1557-9654 (electronic).

Blanc:1964:BGB

[BdHF+64] C. Blanc, J. P. den Hartog, M. Fierz, P. Henrici, J. Ackeret, E. Baldinger, H. Badr, E. Bas, P. Profos, W. Saxer, E. Stiefel, T. M. Gallie, H. Ziegler, and W. Gerber. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 15:567–572, September 1964. CODEN ZAMPDB.

ISSN 0044-2275 (print), 1420-9039 (electronic). URL `http://adsabs.harvard.edu/abs/1964ZaMP...15..567B; https://link.springer.com/article/10.1007/BF01601313`.

Bernath:1950:BGB

[BFF+50] K. Bernath, H. Favre, M. Fierz, F. Held, R. Sänger, and E. Stiefel. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 1(4):271–276, July 1950. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF02020072`.

Busch:1950:BGB

[BFS+50] G. Busch, W. Furrer, E. Stiefel, H. Thiemann, and R. von Wattenwyl. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 1(1):77–80, 1950. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF02008892`.

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). URL `http://link.springer.com/article/10.1007/BF01401049`. With a German translation.

Baumann:1950:BGB

[BGS+50] E. Baumann, F. Gaßmann, N. Schaetti, E. Stiefel, P. Bernays, E. Wanner, and E. Stiefel. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 1(2):??, 1950. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF02009327`.

Bauer:1967:DA

[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`.

Babaie-Kafaki:2015:HHS

[BKG15] Saman Babaie-Kafaki and Reza Ghanbari. A hybridization of the Hestenes–Stiefel and Dai–Yuan conjugate gradient methods based on a least-squares approach. *Optimization Methods and Software*, 30(4):673–681, 2015. ISSN 1026-7670 (print), 1055-6788 (electronic).

Babaie-Kafaki:2017:EHS

[BKG17] S. Babaie-Kafaki and R. Ghanbari. Extensions of the Hestenes–Stiefel and Polak–Ribière-Polyak conjugate gradient methods with sufficient descent property. *Bulletin of the Iranian Mathematical Society*, 43(7):2437–2448, 2017. ISSN 1017-060X.

Babaie-Kafaki:2018:LHH

[BKG18] Saman Babaie-Kafaki and Reza Ghanbari. A linear hybridization of the Hestenes–Stiefel method and the memoryless BFGS technique. *Mediterranean Journal of Mathematics*, 15(3):Paper No. 86, 10, 2018. ISSN 1660-5446 (print), 1660-5454 (electronic).

Batista:2017:EQG

[BKL17] J. Batista, K. Krakowski, and F. S. Leite. Exploring quasi-geodesics on Stiefel manifolds in order to smooth interpolate between domains. In *2017 IEEE 56th Annual Conference on Decision and Control (CDC)*, pages 6395–6402. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Bojanczyk:1999:PPO

[BL99] A. W. Bojanczyk and A. Lutoborski. The Procrustes problem for orthogonal Stiefel matrices. *SIAM Journal on Scientific Computing*, 21(4):1291–1304, July 1999. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/30992`.

Breiter:2017:KST

[BL17] Slawomir Breiter and Krzysztof Langner. Kustaanheimo–Stiefel transformation with an arbitrary defining vector. *Celestial Mechanics and Dynamical Astronomy*, 128(2–3):323–342, February 2017. CODEN CLMCAV. ISSN 0923-2958 (print), 1572-

9478 (electronic). URL `http://link.springer.com/article/10.1007/s10569-017-9754-z`.

Boulanger:2014:MCE

[BLSM14] J. Boulanger, N. Le Bihan, S. Said, and J. H. Manton. Monte-Carlo estimation from observation on Stiefel manifold. In *2014 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 4195–4199. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014.

Browne:2014:OSM

[BM14] Ryan P. Browne and Paul D. McNicholas. Orthogonal Stiefel manifold optimization for eigen-decomposed covariance parameter estimation in mixture models. *Statistics and Computing*, 24 (2):203–210, March 2014. CODEN STACE3. ISSN 0960-3174 (print), 1573-1375 (electronic). URL `http://link.springer.com/article/10.1007/s11222-012-9364-2`.

Bramley:1989:BSA

[Bra89] Randall Barry Bramley. Block Stiefel acceleration. Technical Report CSRD 924, University of Illinois at Urbana-Champaign, Center for Supercomputing Research and Development, Urbana, IL 61801, USA, October 1989. 18 pp.

Bauer:1963:NAN

[BRS63] F. L. Bauer, H. Rutishauser, and E. Stiefel. New aspects in numerical quadrature. In *Proceedings of the Symposium on Applied Mathematics*, volume XV, pages 199–218. American Mathematical Society, Providence, RI, USA, 1963.

Bruderer:2017:EHC

[Bru17] Herbert Bruderer. Early history of computing in Switzerland: Discovery of rare devices, unknown documents, and scarcely known facts. *IEEE Annals of the History of Computing*, 39(1):65–72, January/March 2017. CODEN IAHCEX. ISSN 1058-6180 (print), 1934-1547 (electronic). URL `https://www.computer.org/csdl/mags/an/2017/01/man2017010065-abs.html`.

Bruderer:2020:PBF

[Bru20a] Herbert Bruderer. Preparation for building the first swiss digital computer (Ermeth). ACM Web site, August 31,

2020. URL https://cacm.acm.org/blogs/blog-cacm/247088-preparation-for-building-the-first-swiss-digital-computer-ermeth/.

Bruderer:2020:WTN

[Bru20b] Herbert Bruderer. Why is there no well-known swiss IT industry? ACM Web site, January 20, 2020. URL https://cacm.acm.org/blogcacm/why-is-there-no-well-known-swiss-it-industry/.

Bryner:2017:EGS

[Bry17] Darshan Bryner. Endpoint geodesics on the Stiefel manifold embedded in Euclidean space. *SIAM Journal on Matrix Analysis and Applications*, 38(4):1139–1159, ???? 2017. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Baumgarte:1974:ETI

[BS74a] J. Baumgarte and E. Stiefel. Examples of transformations improving the numerical accuracy of the integration of differential equations. *Lecture Notes in Mathematics*, 362:207–236, 1974. CODEN LNMAA2. ISBN 3-540-06602-0 (print), 3-540-37911-8 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL http://link.springer.com/chapter/10.1007/BFb0066593/; https://link.springer.com/article/10.1007/BFb0066582; https://link.springer.com/article/10.1007/BFb0066593.

Baumgarte:1974:SMH

[BS74b] J. Baumgarte and E. Stiefel. Stabilization by manipulation of the Hamiltonian. *Celestial Mechanics*, 10(2):71–85, August 1974. CODEN CLMCAV. ISSN 0008-8714 (print), 2214-7284 (electronic). URL https://link.springer.com/article/10.1007/BF01261879.

Baumgarte:1974:SDE

[BS74c] J. Baumgarte and E. Stiefel. Stabilization of differential equations by introduction of a modified Hamiltonian. *Mechanics Research Communications*, 1(1):49–50, January 1974. CODEN MRCOD2. ISSN 0093-6413 (print), 1873-3972 (electronic).

Basu:2017:TCQ

[BS17] Samik Basu and B. Subhash. Topology of certain quotient spaces of Stiefel manifolds. *Canadian Mathematical Bulletin = Bulletin canadien de mathématiques*, 60(2):235–??, June 2017. CODEN CMBUA3. ISSN 0008-4395 (print), 1496-4287 (electronic).

Baluch:2018:NMT

[BSA18] Bakhtawar Baluch, Zabidin Salleh, and Ahmad Alhawarat. A new modified three-term Hestenes–Stiefel conjugate gradient method with sufficient descent property and its global convergence. *Journal of Optimization*, pages Art. ID 5057096, 13, 2018. ISSN 2314-6486 (print), 2356-752X (electronic).

Baumgartner:1953:BGB

[BSR53] W. Baumgartner, E. Stiefel, and H. Rutishauser. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 4(1):87–88, January 1953. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF02075310`.

Bas:1955:BGB

[BSRD+55] E. B. Bas, T. Stutz, E. Roth-Desmeules, E. Stiefel, W. Pauli, et al. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 6(1):76–80, January 1955. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `http://www.springerlink.com/content/k2x4416g24577333/fulltext.pdf; https://link.springer.com/article/10.1007/BF01600738`.

Balajewicz:2016:MSR

[BTD16] Maciej Balajewicz, Irina Tezaur, and Earl Dowell. Minimal subspace rotation on the Stiefel manifold for stabilization and enhancement of projection-based reduced order models for the compressible Navier–Stokes equations. *Journal of Computational Physics*, 321(??):224–241, September 15, 2016. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0021999116301826`.

Cai:2011:CBE

[CG11] S. Cai and Y. Gong. Cognitive beamforming exploiting Stiefel manifold for sum-transmit power minimization. In *2011 8th International Conference on Information, Communications Signal Processing*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2011.

Cipra:2000:BCE

[Cip00] Barry A. Cipra. The best of the 20th Century: Editors name top 10 algorithms. *SIAM News*, 33(4):1–2, May 2000. ISSN 0036-1437. URL `https://archive.siam.org/pdf/news/637.pdf`.

Carson:2024:TUC

[CLS24] Erin Carson, Jörg Liesen, and Zdeněk Strakoš. Towards understanding CG and GMRES through examples. *Linear Algebra and its Applications*, 692(??):241–291, July 1, 2024. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0024379524001381`.

Chen:2020:PGM

[CMSZ20] Shixiang Chen, Shiqian Ma, Anthony Man-Cho So, and Tong Zhang. Proximal gradient method for nonsmooth optimization over the Stiefel manifold. *SIAM Journal on Optimization*, 30(1): 210–239, ???? 2020. CODEN SJOPE8. ISSN 1052-6234 (print), 1095-7189 (electronic).

Celledoni:2003:ILG

[CO03] Elena Celledoni and Brynjulf Owren. On the implementation of Lie group methods on the Stiefel manifold. *Numerical Algorithms*, 32(2–4):163–183, April 2003. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://ipsapp007.kluweronline.com/content/getfile/5058/45/3/abstract.htm`; `http://ipsapp007.kluweronline.com/content/getfile/5058/45/3/fulltext.pdf`.

Chang:2001:ELR

[CR01] Ted Chang and Louis-Paul Rivest. M-estimation for location and regression parameters in group models: a case study using Stiefel manifolds. *Annals of Statistics*, 29(3):784–814, June 2001. CODEN ASTSC7. ISSN 0090-5364 (print), 2168-8966 (electronic). URL `http://projecteuclid.org/euclid.aos/1009210690`.

Coghlan:2024:HPL

[CRB24] Brian Coghlan, Brian Randell, and Ralf Buelow. How Percy Ludgate's 1909 paper (and IBM) helped thwart Konrad Zuse's computer patent in 1960. *IEEE Annals of the History of Computing*, 46(3):20–35, July/September 2024. CODEN IAHCEX. ISSN 1058-6180 (print), 1934-1547 (electronic).

Cusick:1984:FAE

[Cus84] Larry W. Cusick. Free actions by elementary abelian 2-groups on Stiefel manifolds. *Canadian Mathematical Bulletin = Bulletin canadien de mathématiques*, 27(1):72–77, March 1984. CODEN CMBUA3. ISSN 0008-4395 (print), 1496-4287 (electronic).

Cetingul:2009:IMS

[CV09] H. E. Cetingul and R. Vidal. Intrinsic mean shift for clustering on Stiefel and Grassmann manifolds. In *2009 IEEE Conference on Computer Vision and Pattern Recognition*, pages 1896–1902. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009.

Chakraborty:2019:SSM

[CV19] Rudrasis Chakraborty and Baba C. Vemuri. Statistics on the Stiefel manifold: Theory and applications. *Annals of Statistics*, 47(1):415–438, February 2019. CODEN ASTSC7. ISSN 0090-5364 (print), 2168-8966 (electronic). URL `http://projecteuclid.org/euclid.aos/1543568593`.

Cardoso:2015:SSP

[CZ15] João R. Cardoso and Krystyna Ziętak. On a sub-Stiefel Procrustes problem arising in computer vision. *Numerical Linear Algebra with Applications*, 22(3):523–547, May 2015. CODEN NLAAEM. ISSN 1070-5325 (print), 1099-1506 (electronic).

Cai:2018:FSI

[CZNL18] G. Cai, R. Zhang, F. Nie, and X. Li. Feature selection via incorporating Stiefel manifold in relaxed K-means. In *2018 25th IEEE International Conference on Image Processing (ICIP)*, pages 1503–1507. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Chretien:1970:BGB

[CZZG+70] M. Chrétien, Hans Ziegler, I. Zschokke-Gränacher, K. Alder, E. Stiefel, P. J. Huber, and H. R. Schwarz. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 21(6):1106–1108, November 1970. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF01594883`.

delBuono:2001:RKT

[dBL01] N. del Buono and L. Lopez. Runge–Kutta type methods based on geodesics for systems of ODEs on the Stiefel manifold. *BIT Numerical Mathematics*, 41(5):912–923, December 2001. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=41&issue=5&spage=912`.

Dai:2005:MHS

[DC05] Zhi Feng Dai and Lan Ping Chen. A mixed Hestenes–Stiefel Dan–Yuan conjugate gradient method. *Mathematica Numerica Sinica. Jisuan Shuxue*, 27(4):429–436, 2005. ISSN 0254-7791.

Deprit:1994:LLV

[DEF94] André Deprit, Antonio Elipe, and Sebastián Ferrer. Linearization: Laplace vs. Stiefel. *Celestial Mechanics and Dynamical Astronomy*, 58(2):151–201, February 1994. CODEN CLMCAV. ISSN 0923-2958 (print), 1572-9478 (electronic). URL `http://link.springer.com/article/10.1007/bf00695790`.

Degtyarev:1992:SOR

[Deg92] A. I. Degtyarev. Stiefel orientations on a real algebraic variety. *Lecture Notes in Mathematics*, 1524:205–220, 1992. CODEN LNMAA2. ISBN 3-540-55992-2 (print), 3-540-47337-8 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL `http://link.springer.com/article/10.1007/BFb0084605; http://link.springer.com/article/10.1007/BFb0084621; http://link.springer.com/chapter/10.1007/BFb0084621/`.

Delchambre:1973:AMD

[Del73] M. Delchambre. De l'avantage des méthodes aux différences modifiées de Stiefel–Bettis pour la résolution d'équations différentielles du second ordre perturbées. (French) [The advantage of modified Stiefel–Bettis difference methods for the solution of perturbed second order differential equations]. *Numerische Mathematik*, 21 (1):33–36, February 1973. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

deHaller:1955:BGB

[dHESS55] P. de Haller, W. Epprecht, E. Stiefel, and W. Saxer. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics*

and Physics, 6(5):??, 1955. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF01589772`.

Dong:2017:SNT

[DHG+17] Xiao-Liang Dong, De-Ren Han, Reza Ghanbari, Xiang-Li Li, and Zhi-Feng Dai. Some new three-term Hestenes–Stiefel conjugate gradient methods with affine combination. *Optimization*, 66(5): 759–776, 2017. CODEN OPTZDQ. ISSN 0233-1934, 0323-3898.

Dong:2015:MHS

[DLHY15] Xiao Liang Dong, Hong Wei Liu, Yu Bo He, and Xi Mei Yang. A modified Hestenes–Stiefel conjugate gradient method with sufficient descent condition and conjugacy condition. *Journal of Computational and Applied Mathematics*, 281(??):239–249, June 2015. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042714005378`.

Dong:2017:MNH

[DLL+17] Xiao-Liang Dong, Hong-Wei Liu, Xiang-Li Li, Yu-Bo He, and Ze-Xian Liu. A modified nonmonotone Hestenes–Stiefel type conjugate gradient methods for large-scale unconstrained problems. *Numerical Functional Analysis and Optimization*, 38(1):39–50, 2017. CODEN NFAODL. ISSN 0163-0563 (print), 1532-2467 (electronic).

Dong:2019:EAT

[DLLL19] Xiao-Liang Dong, Ze-Xian Liu, Hong-Wei Liu, and Xiang-Li Li. An efficient adaptive three-term extension of the Hestenes–Stiefel conjugate gradient method. *Optimization Methods and Software*, 34(3):546–559, 2019. ISSN 1026-7670 (print), 1055-6788 (electronic).

Dongarra:2000:GEI

[DS00] Jack Dongarra and Francis Sullivan. Guest Editors' introduction: The top 10 algorithms. *Computing in Science and Engineering*, 2(1):22–23, January/February 2000. CODEN CSENFA. ISSN 1521-9615 (print), 1558-366X (electronic). URL `http://dlib.computer.org/cs/books/cs2000/pdf/c1022.pdf; http://www.computer.org/cse/cs1999/c1022abs.htm`. See correspondence [**?**].

Dodig:2015:MQF

[DSX15] Marija Dodig, Marko Stosić, and João Xavier. On minimizing a quadratic function on Stiefel manifold. *Linear Algebra and its Applications*, 475(??):251–264, June 15, 2015. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0024379515001354`.

Dunham:1974:CSE

[Dun74] Charles B. Dunham. Convergence of Stiefel's exchange method on an infinite set. *SIAM Journal on Numerical Analysis*, 11(4): 729–731, September 1974. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Dai:2012:GCM

[DW12] Zhifeng Dai and Fenghua Wen. Global convergence of a modified Hestenes–Stiefel nonlinear conjugate gradient method with Armijo line search. *Numerical Algorithms*, 59(1):79–93, January 2012. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=1017-1398&volume=59&issue=1&spage=79`.

Engeli:1959:C

[EGRS59a] M. Engeli, Th. Ginsburg, H. Rutishauser, and E. Stiefel. Conclusions. In *Refined Iterative Methods for Computation of the Solution and the Eigenvalues of Self-adjoint Boundary Value Problems* [EGRS59b], chapter V, pages 102–105. ISBN 3-0348-7224-0 (e-book), 3-0348-7226-7. ISSN 0514-8146. LCCN QA3 .Z8 v.8; QA371. URL `http://link.springer.com/article/10.1007/978-3-0348-7224-9; http://www.springerlink.com/content/978-3-0348-7224-9`.

Engeli:1959:RIM

[EGRS59b] Max Engeli, Theo. Ginsburg, Heinz Rutishauser, and Eduard L. Stiefel. *Refined Iterative Methods for Computation of the Solution and the Eigenvalues of Self-Adjoint Boundary Value Problems*, volume 8 of *Mitteilungen aus dem Institut für angewandte Mathematik*. Birkhäuser, Cambridge, MA, USA; Berlin, Germany; Basel, Switzerland, 1959. ISBN 3-0348-7224-0 (e-book), 3-0348-7226-7. ISSN 0514-8146. 107 pp. LCCN QA3 .Z8 v.8; QA371. URL `http://link.springer.com/article/10.`

1007/978-3-0348-7224-9; http://www.springerlink.com/content/978-3-0348-7224-9.

Elton:1948:BRL

[Elt48] L. R. B. Elton. Book review: *Lehrbuch der darstellenden Geometrie*. By Eduard Stiefel. Pp. 173. 1947 (Birkhäuser, Basel). *Mathematical Gazette*, 32(298):44, February 1948. CODEN MAGAAS. ISSN 0025-5572 (print), 2056-6328 (electronic). URL http://www.jstor.org/stable/3608655.

Elden:1999:PPS

[EP99] Lars Eldén and Haesun Park. A Procrustes problem on the Stiefel manifold. *Numerische Mathematik*, 82(4):599–619, June 1999. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer-ny.com/link/service/journals/00211/bibs/9082004/90820599.htm; http://link.springer-ny.com/link/service/journals/00211/papers/9082004/90820599.pdf.

Faramarzi:2021:STT

[FA21] Parvaneh Faramarzi and Keyvan Amini. A spectral three-term Hestenes–Stiefel conjugate gradient method. *4OR*, 19(1):71–92, February 2021. ISSN 1614-2411 (print), 1619-4500 (electronic).

Francisco:2012:NAM

[FB12] Juliano B. Francisco and Fermín S. Viloche Bazán. Nonmonotone algorithm for minimization on closed sets with applications to minimization on Stiefel manifolds. *Journal of Computational and Applied Mathematics*, 236(10):2717–2727, April 2012. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042712000258.

Forsythe:1951:IMS

[FHR51] George E. Forsythe, Magnus R. Hestenes, and J. Barkley Rosser. Iterative methods for solving linear equations. *Bulletin of the American Mathematical Society*, 57(6):480, November 1951. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881X (electronic). URL https://www.ams.org/journals/bull/1951-57-06/.

Fox:1948:NSA

[FHW48] L. Fox, H. D. Huskey, and J. H. Wilkinson. Notes on the solution of algebraic linear simultaneous equations. *Quarterly Journal of*

Mechanics and Applied Mathematics, 1:149–173, 1948. CODEN QJMMAV. ISSN 0033-5614 (print), 1464-3855 (electronic).

Fiori:2000:SGF

[Fio00] S. Fiori. Stiefel–Grassman flow (SGF) learning: further results. In *Proceedings of the IEEE-INNS-ENNS International Joint Conference on Neural Networks. IJCNN 2000. Neural Computing: New Challenges and Perspectives for the New Millennium*, volume 3, pages 343–348 vol.3. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2000.

Fiori:2001:TLW

[Fio01] S. Fiori. A theory for learning by weight flow on Stiefel–Grassman manifold. *Neural Computation*, 13(7):1625–1647, 2001. CODEN NEUCEB. ISSN 0899-7667 (print), 1530-888X (electronic).

Fiori:2005:FIL

[Fio05] S. Fiori. Formulation and integration of learning differential equations on the Stiefel manifold. *IEEE Transactions on Neural Networks*, 16(6):1697–1701, November 2005. CODEN ITNNEP. ISSN 1045-9227 (print), 1941-0093 (electronic).

Fiori:2012:LCS

[FKT12] S. Fiori, T. Kaneko, and T. Tanaka. Learning on the compact Stiefel manifold by a Cayley-transform-based pseudo-retraction map. In *The 2012 International Joint Conference on Neural Networks (IJCNN)*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012.

Fiori:2014:MML

[FKT14] S. Fiori, T. Kaneko, and T. Tanaka. Mixed maps for learning a Kolmogoroff–Nagumo-type average element on the compact Stiefel manifold. In *2014 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 4518–4522. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014.

Fang:1997:SMG

[FL97] Kai-Tai Fang and Run-Ze Li. Some methods for generating both an NT-net and the uniform distribution on a Stiefel manifold and their applications. *Computational Statistics & Data Analysis*, 24(1):29–46, March 6, 1997. CODEN CSDADW. ISSN 0167-9473 (print), 1872-7352 (electronic).

URL http://www.sciencedirect.com/science/article/pii/S0167947396000576.

Fassler:1992:GTM

[FS92] A. Fässler and E. Stiefel. *Group Theoretical Methods and Their Applications*. Birkhäuser Boston Inc., Cambridge, MA, USA, 1992. ISBN 0-8176-3527-0. xii + 296 pp. URL https://link.springer.com/article/10.1007/978-1-4612-0395-7. Translated from the German by Baoswan Dzung Wong.

First:2013:SWI

[FV13] Uriya A. First and Uzi Vishne. Stiefel–Whitney invariants for bilinear forms. *Linear Algebra and its Applications*, 439 (7):1905–1917, October 1, 2013. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0024379513003662.

Gitler:1970:TSM

[GL70] S. Gitler and Kee Yuen Lam. The K theory of Stiefel manifolds. *Lecture Notes in Mathematics*, 168:35–66, 1970. CODEN LNMAA2. ISBN 3-540-05300-X (print), 3-540-36437-4 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL http://link.springer.com/article/10.1007/BFb0058513; http://link.springer.com/article/10.1007/BFb0058517; http://link.springer.com/chapter/10.1007/BFb0058517/.

Gunthard:1955:BGB

[GRDS+55] Hs. H. Günthard, E. Roth-Desmeules, R. Sänger, W. Baumgartner, F. Tank, F. Held, and E. Stiefel. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 6(4):341–344, July 1955. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL https://link.springer.com/article/10.1007/BF01587636.

Guo:1995:GCH

[GXS95] Wen Ying Guo, Da Chuan Xu, and Gui Cheng Shen. Global convergence of the Hestenes–Stiefel conjugate gradient method. *Kexue Tongbao (Chinese)*, 40(23):2113–2117, 1995. ISSN 0023-074X.

H:1970:BRH

[H.70] A. S. H. Book review: H. R. Schwarz, H. Rutishauser & E. Stiefel, *Numerik Symmetrischer Matrizen*, B. G. Teubner Ver-

lag, 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`.

Halil:2021:MHS

[HAE21] Isam H. Halil, Khalil K. Abbo, and Hassan H. Ebrahim. Modifications of Hestenes and Stiefel CG method for solving unconstrained optimization problems. In *2021 7th International Conference on Contemporary Information Technology and Mathematics (ICCITM)*, pages 274–278. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Hamming:1964:BRE

[Ham64] R. W. Hamming. Book review: Edward L. Stiefel, *An Introduction to Numerical Mathematics*, Academic Press, Inc., New York, 1963, x + 286 p., 24 cm. *Mathematics of Computation*, 18(88): 684, October 1964. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `https://www.jstor.org/stable/2002969`.

Hasan:2008:JCP

[Has08] M. A. Hasan. Joint computation of principal and minor components using gradient dynamical systems over Stiefel manifolds. In *2008 47th IEEE Conference on Decision and Control*, pages 3287–3292. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008.

Hegedus:1987:GRHb

[Heg88a] Cs. J. Hegedűs. General recursions of Hestenes–Stiefel type for conjugate directions. II. The reverse recursion. *Alkalmazott Matematikai Lapok*, 13(3–4):361–372, 1987/88. ISSN 0133-3399.

Hegedus:1987:GRHa

[Heg88b] Csaba J. Hegedűs. General recursions of Hestenes–Stiefel type for conjugate directions. I. The direct recursion. *Alkalmazott Matematikai Lapok*, 13(1–2):83–96, 1987/88. ISSN 0133-3399.

Hein:1979:BPD

[Hei79] Werner Hein. Bibliographie Prof. Dr. Eduard Stiefel (1909–1978). Report, Seminar für Angewandte Mathematik der ETHZ, Zurich, Switzerland, 1979. 12 pp. URL `https://www.swissbib.ch/Record/128184027/`.

Henkel:2005:SPB

[Hen05] O. Henkel. Sphere-packing bounds in the Grassmann and Stiefel manifolds. *IEEE Transactions on Information Theory*, 51(10): 3445–3456, October 2005. CODEN IETTAW. ISSN 0018-9448 (print), 1557-9654 (electronic).

Herriot:1964:BRI

[Her64a] J. G. Herriot. Book review: *An Introduction to Numerical Mathematics*. By Eduard Stiefel. Translated by Werner C. Rheinbold, Academic Press, New York, 1963. x + 286 pp. *American Mathematical Monthly*, 71(9):1065, November 1964. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.jstor.org/stable/2311964`.

Herriot:1964:RPP

[Her64b] J. G. Herriot. Recent publications and presentations: *An Introduction to Numerical Mathematics*, by Eduard Stiefel and Werner C. Rheinboldt. *American Mathematical Monthly*, 71(9):1065, November 1964. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Henrich:1968:BGBa

[HHR+68] P. Henrich, P. Huguenin, H. Rutishauser, I. Zschokke-Gränacher, Hans Ziegler, H. R. Schwarz, L. S. Dzung, and E. Stiefel. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 19(6):981–984, November 1968. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF01602290`.

HassanIbrahim:2022:DFT

[HKH+22] Abdulkarim Hassan Ibrahim, Poom Kumam, Basim A. Hassan, Auwal Bala Abubakar, and Jamilu Abubakar. A derivative-free three-term Hestenes–Stiefel type method for constrained nonlinear equations and image restoration. *International Journal of Computer Mathematics*, 99(5):1041–1065, 2022. CODEN IJCMAT. ISSN 0020-7160.

Hogan:1982:ESS

[Hog82] P. A. Hogan. An embedding of some Stiefel bundles. *Journal of Mathematical Physics*, 23(12):2472–2474, December 1982.

CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v23/i12/p2472_s1`.

Hestenes:1952:MCG

[HS52] Magnus R. Hestenes and Eduard Stiefel. Methods of conjugate gradients for solving linear systems. *Journal of Research of the National Bureau of Standards (1934)*, 49:409–436 (1953), 1952. ISSN 0091-0635 (print), 2376-5305 (electronic).

Hussien:2014:MRB

[HSG+14] M. T. Hussien, K. G. Seddik, R. H. Gohary, M. Shaqfeh, H. Alnuweiri, and H. Yanikomeroglu. Multi-resolution broadcasting over the Grassmann and Stiefel manifolds. In *2014 IEEE International Symposium on Information Theory*, pages 1907–1911. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014.

Hussien:2015:STB

[HSG+15] M. T. Hussien, K. G. Seddik, R. H. Gohary, M. Shaqfeh, H. Alnuweiri, and H. Yanikomeroglu. Space-time block codes over the Stiefel manifold. In *2015 IEEE Global Communications Conference (GLOBECOM)*, pages 1–7. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015.

Huper:2018:RSM

[HU18] K. Hüper and F. Ullrich. Real Stiefel manifolds: an extrinsic point of view. In *2018 13th APCA International Conference on Automatic Control and Soft Computing (CONTROLO)*, pages 13–18. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Hu:2020:SMH

[HWY20] Wujie Hu, Jinzhao Wu, and Gonglin Yuan. Some modified Hestenes–Stiefel conjugate gradient algorithms with application in image restoration. *Applied Numerical Mathematics: Transactions of IMACS*, 158(??):360–376, December 2020. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0168927420302440`.

IEEE:2003:IICa

[IEE03] IEEE, editor. *2003 IEEE International Conference on Acoustics, Speech, and Signal Processing: proceedings: April 6–10, 2003, Hong Kong Exhibition and Convention Centre, Hong Kong (ICASSP '03)*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2003. ISBN 0-7803-7663-3. LCCN TK7882.S65 I16 2003. URL `http://ieeexplore.ieee.org/servlet/opac?punumber=8535`. IEEE catalog number 03CH37404.

Inomata:1993:TCQa

[IJW93a] Akira Inomata, Georg Junker, and Raj Wilson. Topological charge quantization via path integration: An application of the Kustaanheimo–Stiefel transformation. *Foundations of Physics*, 23(6):969, June 1993. CODEN FNDPA4. ISSN 0015-9018 (print), 1572-9516 (electronic). URL `http://link.springer.com/article/10.1007/BF01891519`.

Inomata:1993:TCQb

[IJW93b] Akira Inomata, Georg Junker, and Raj Wilson. Topological charge quantization via path integration: An application of the Kustaanheimo–Stiefel transformation. *Foundations of Physics*, 23 (8):1073–1091, August 1993. CODEN FNDPA4. ISSN 0015-9018 (print), 1572-9516 (electronic). URL `http://link.springer.com/article/10.1007/BF00732414`.

Iwashita:2017:TPU

[IKAH17] Toshiya Iwashita, Bernhard Klar, Moe Amagai, and Hiroki Hashiguchi. A test procedure for uniformity on the Stiefel manifold based on projection. *Statistics & Probability Letters*, 128(??):89–96, September 2017. CODEN SPLTDC. ISSN 0167-7152 (print), 1879-2103 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0167715217301669`.

Jain:1988:MSB

[Jai88] M. K. Jain. A modification of the Stiefel–Bettis method for nonlinearly damped oscillators. *BIT*, 28(2):302–307, June 1988. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://link.springer.com/article/10.1007/BF01934093; http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=28&issue=2&spage=302`.

Japri:2021:NMH

[JBM21] Nur Athira Japri, Srimazzura Basri, and Mustafa Mamat. New modification of the Hestenes–Stiefel with strong Wolfe line search. In *AIP Conference Proceedings: SCIEMATHIC 2020*, volume 2355. American Institute of Physics, Woodbury, NY, USA, 2021.

Jurdjevic:2018:GQG

[JLK18] V. Jurdjevic, F. S. Leite, and K. Krakowski. The geometry of quasi-geodesics on Stiefel manifolds. In *2018 13th APCA International Conference on Automatic Control and Soft Computing (CONTROLO)*, pages 213–218. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Jankovic:2005:NLG

[JR05] M. V. Jankovic and B. Reljin. Neural learning on Grassman/ Stiefel principal/minor submanifold. In *EUROCON 2005 — The International Conference on "Computer as a Tool"*, volume 1, pages 249–252. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2005.

Khoshsimaye-Bargard:2023:DFS

[KBA23a] Maryam Khoshsimaye-Bargard and Ali Ashrafi. A descent family of the spectral Hestenes–Stiefel method by considering the quasi-Newton method. *Optimization Methods and Software*, 38(3):495–509, 2023. ISSN 1026-7670 (print), 1055-6788 (electronic).

Khoshsimaye-Bargard:2023:FMT

[KBA23b] Maryam Khoshsimaye-Bargard and Ali Ashrafi. A family of the modified three-term Hestenes–Stiefel conjugate gradient method with sufficient descent and conjugacy conditions. *Journal of Applied Mathematics and Computing*, 69(3):2331–2360, 2023. ISSN 1598-5865 (print), 1865-2085 (electronic).

Kaneko:2013:EAA

[KFT13] T. Kaneko, S. Fiori, and T. Tanaka. Empirical arithmetic averaging over the compact Stiefel manifold. *IEEE Transactions on Signal Processing*, 61(4):883–894, 2013. CODEN ITPRED. ISSN 1053-587X (print), 1941-0476 (electronic).

Kirchgraber:1980:TRJ

[Kir80] Urs Kirchgraber. Towards a rigorous justification of the Stiefel–Baumgarte stabilization method. *Celestial Mechanics*, 21(2):

225–236, February 1980. CODEN CLMCAV. ISSN 0008-8714 (print), 2214-7284 (electronic). URL `http://link.springer.com/article/10.1007/bf01230901`.

Krakowski:2017:MCA

[KMLB17] Krzysztof A. Krakowski, Luís Machado, Fátima Silva Leite, and Jorge Batista. A modified Casteljau algorithm to solve interpolation problems on Stiefel manifolds. *Journal of Computational and Applied Mathematics*, 311(??):84–99, February 2017. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042716303375`.

Koochakzadeh:2016:NMF

[KMSR16] A. Koochakzadeh, S. Miran, P. Samangouei, and M. C. Rotkowitz. Nonnegative matrix factorization by optimization on the Stiefel manifold with SVD initialization. In *2016 54th Annual Allerton Conference on Communication, Control, and Computing (Allerton)*, pages 1068–1073. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016.

Kume:2013:SAN

[KPW13] A. Kume, S. P. Preston, and Andrew T. A. Wood. Saddlepoint approximations for the normalizing constant of Fisher–Bingham distributions on products of spheres and Stiefel manifolds. *Biometrika*, 100(4):971–984, December 2013. CODEN BIOKAX. ISSN 0006-3444 (print), 1464-3510 (electronic). URL `http://biomet.oxfordjournals.org/content/100/4/971`.

Krogstad:2003:LCL

[Kro03] Stein Krogstad. A low complexity Lie group method on the Stiefel manifold. *BIT Numerical Mathematics*, 43(1):107–122, March 2003. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=43&issue=1&spage=107`.

Kirchgraber:1982:P

[KRS82] U. Kirchgraber, H. Rüssmann, and V. Szebehely. Preface. *Celestial Mechanics*, 28(1–2):5, September 1982. CODEN CLMCAV. ISSN 0008-8714 (print), 2214-7284 (electronic). URL `http://link.springer.com/article/10.1007/bf01230653`.

Krueckeberg:1966:NIF

[Kru66] F. Krueckeberg. Zur Numerischen Integration Und Fehlerrechnung Bei Gewoehnlichen Differentialgleichungen. In E. Stiefel, editor, *Mathematische Methoden D. Himmelsmechanik U. Astronautik*. Bibliographisches Institut, Mannheim, Germany; Wien, Austria; Zürich, Switzerland, 1966.

Kustaanheimo:1965:PTK

[KS65] P. Kustaanheimo and E. Stiefel. Perturbation theory of Kepler motion based on spinor regularization. *Journal für die reine und angewandte Mathematik*, 218:204–219, 1965. CODEN JRMAA8. ISSN 0075-4102 (print), 1435-5345 (electronic).

Kirchgraber:1978:MAS

[KS78] Urs Kirchgraber and Eduard Stiefel. *Methoden der analytischen Störungsrechnung und ihre Anwendungen. (German) [Methods of analytical perturbation calculation and their applications]*, volume 44 of *Leitfäden der Angewandten Mathematik und Mechanik [Guides to Applied Mathematics and Mechanics]*. B. G. Teubner, Stuttgart, Germany; Leipzig, Germany, 1978. ISBN 3-322-92148-4 (print), 3-519-02346-6, 3-322-92147-6. viii + 294 pp. LCCN QA372 .K55.

Kanamori:2012:NCO

[KT12] Takafumi Kanamori and Akiko Takeda. Non-convex optimization on Stiefel manifold and applications to machine learning. *Lecture Notes in Computer Science*, 7663:109–116, 2012. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer.com/article/10.1007/978-3-642-34475-6; http://link.springer.com/article/10.1007/978-3-642-34475-6_14; http://link.springer.com/chapter/10.1007/978-3-642-34475-6_14/`.

Kaneko:2012:MCA

[KTF12] T. Kaneko, T. Tanaka, and S. Fiori. A method to compute averages over the compact Stiefel manifold. In *2012 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 3829–3832. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012.

Kurcheeva:1977:KSR

[Kur77] I. V. Kurcheeva. Kustaanheimo–Stiefel regularization and nonclassical canonical transformations. *Celestial Mechan-*

ics, 15(3):353–365, April 1977. CODEN CLMCAV. ISSN 0008-8714 (print), 2214-7284 (electronic). URL `http://link.springer.com/article/10.1007/bf01228427; https://link.springer.com/article/10.1007/BF01228427`.

Krishnamachari:2008:VGBb

[KV08a] R. T. Krishnamachari and M. K. Varanasi. Volume of geodesic balls in the complex Stiefel manifold. In *2008 46th Annual Allerton Conference on Communication, Control, and Computing*, pages 902–909. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008.

Krishnamachari:2008:VGBa

[KV08b] R. T. Krishnamachari and M. K. Varanasi. Volume of geodesic balls in the real Stiefel manifold. In *2008 42nd Annual Conference on Information Sciences and Systems*, pages 402–406. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008.

Krishnamachari:2009:DRT

[KV09] R. T. Krishnamachari and M. K. Varanasi. Distortion-rate tradeoff of a source uniformly distributed over the composite PF(N) and the composite Stiefel manifolds. In *2009 IEEE International Symposium on Information Theory*, pages 522–526. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009.

Kume:2019:ALC

[KY19] K. Kume and I. Yamada. Adaptive localized Cayley parametrization technique for smooth optimization over the Stiefel manifold. In *2019 27th European Signal Processing Conference (EUSIPCO)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Langer:1959:NAP

[Lan59] R. E. Langer, editor. *On numerical approximation. Proceedings of a Symposium, Madison, April 21–23, 1958*. The University of Wisconsin Press, Madison, WI, USA, 1959. x + 462 pp. LCCN QA3 .U45 no. 1. Publication no. 1 of the Mathematics Research Center, U.S. Army, the University of Wisconsin.

Lui:2009:CSQ

[LBK09] Y. M. Lui, J. R. Beveridge, and M. Kirby. Canonical Stiefel quotient and its application to generic face recognition in illumination spaces. In *2009 IEEE 3rd International Conference on Biometrics: Theory, Applications, and Systems*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2009.

Lu:2003:BSB

[LDL03] Jun Lu, T. N. Davidson, and Z.-Q. Luo. Blind separation of BPSK signals using Newton's method on the Stiefel manifold. In IEEE [IEE03], pages IV–301. ISBN 0-7803-7663-3. LCCN TK7882.S65 I16 2003. URL `http://ieeexplore.ieee.org/servlet/opac?punumber=8535`. IEEE catalog number 03CH37404.

Li:2017:DLA

[LDL+17] Y. Li, S. Ding, Z. Li, X. Li, and B. Tan. Dictionary learning in the analysis sparse representation with optimization on Stiefel manifold. In *2017 IEEE Global Conference on Signal and Information Processing (GlobalSIP)*, pages 1270–1274. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Li:2019:SRB

[LDT+19] Y. Li, S. Ding, B. Tan, H. Zhao, and Z. Li. Sparse representation based on the analysis model with optimization on the Stiefel manifold. *IEEE Access*, 7(??):8385–8397, 2019. ISSN 2169-3536.

Lee:1995:CPM

[Lee95] J. A. N. Lee. Computer pioneers: Magnus R. Hestenes. IEEE Web site., 1995. URL `https://history.computer.org/pioneers/hestenes.html`.

Lide:2001:CEM

[Lid01] D. R. Lide, editor. *A Century of Excellence in Measurements, Standards, and Technology: A Chronicle of Selected NBS/NIST Publications, 1901–2000*, volume 958. National Technical Information Service, Washington, DC, USA, 2001. ix + 386 pp. URL `https://nvlpubs.nist.gov/nistpubs/sp958-lide/cntsp958old.htm`. NIST Special Publication.

Li:2022:MTT

[LLW22] Dandan Li, Yuangfei Li, and Songhua Wang. A modified three terms Hestenes–Stiefel conjugate gradient projection algorithm and its application. *Journal of Jilin University. Science Edition. Jilin Daxue Xuebao. Lixue Ban*, 60(1):64–72, 2022. ISSN 1671-5489.

Lauchli:1958:BGB

[LSE+58] P. Läuchli, E. Stiefel, C. Enz, E. Roth-Desmeules, Th. Ginsburg, and M. Strutt. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 9(1):93–96, January 1958. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF01596870`.

Liu:2015:MMT

[LWW15] Xin-Guo Liu, Xue-Feng Wang, and Wei-Guo Wang. Maximization of matrix trace function of product Stiefel manifolds. *SIAM Journal on Matrix Analysis and Applications*, 36(4):1489–1506, ???? 2015. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Manton:2001:MSD

[Man01] J. H. Manton. Modified steepest descent and Newton algorithms for orthogonally constrained optimisation. Part I. The complex Stiefel manifold. In *Proceedings of the Sixth International Symposium on Signal Processing and its Applications (Cat.No.01EX467)*, volume 1, pages 80–83 vol.1. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2001.

Mardia:1977:DSG

[Mar77] K. V. Mardia. Distributions on Stiefel and Grassmann manifolds, and their applications. *Advances in Applied Probability*, 9(3):435–436, September 1977. CODEN AAPBBD. ISSN 0001-8678 (print), 1475-6064 (electronic). URL `http://www.jstor.org/stable/1426097`.

McCleary:1985:CGS

[McC85] John McCleary. Closed geodesics on Stiefel manifolds. *Lecture Notes in Mathematics*, 1172:157–162, 1985. CODEN LNMAA2. ISBN 3-540-16061-2 (print), 3-540-39745-0 (e-book).

ISSN 0075-8434 (print), 1617-9692 (electronic). URL `http://link.springer.com/article/10.1007/BFb0074420; http://link.springer.com/article/10.1007/BFb0074429; http://link.springer.com/chapter/10.1007/BFb0074429/`.

Ma:1998:MEC

[MKS98] Y. Ma, J. Kosecka, and S. Sastry. Motion estimation in computer vision: optimization on Stiefel manifolds. In *Proceedings of the 37th IEEE Conference on Decision and Control (Cat. No.98CH36171)*, volume 4, pages 3751–3756 vol.4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1998.

Marjanovic:2016:NMS

[MPS16] G. Marjanovic, M. J. Piggott, and V. Solo. Numerical methods for stochastic differential equations in the Stiefel manifold made simple. In *2016 IEEE 55th Conference on Decision and Control (CDC)*, pages 2853–2860. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016.

Marjanovic:2017:EGP

[MS17] G. Marjanovic and V. Solo. An engineer's guide to particle filtering on the Stiefel manifold. In *2017 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 3834–3838. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Markdahl:2018:TAG

[MTG18] J. Markdahl, J. Thunberg, and J. Gonçalves. Towards almost global synchronization on the Stiefel manifold. In *2018 IEEE Conference on Decision and Control (CDC)*, pages 496–501. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Neukom:2005:EFS

[Neu05] Hans Neukom. ERMETH: The first Swiss computer. *IEEE Annals of the History of Computing*, 27(4):5–22, October/December 2005. CODEN IAHCEX. ISSN 1058-6180 (print), 1934-1547 (electronic).

Narayanan:2021:LHD

[NK21] Sindhu Narayanan and P. Kaelo. A linear hybridization of Dai–Yuan and Hestenes–Stiefel conjugate gradient method for uncon-

strained optimization. *Numerical Mathematics. Theory, Methods and Applications*, 14(2):527–539, 2021. ISSN 1004-8979 (print), 2079-7338 (electronic).

Nikpour:2002:ASM

[NMH02] M. Nikpour, J. H. Manton, and G. Hori. Algorithms on the Stiefel manifold for joint diagonalisation. In *2002 IEEE International Conference on Acoustics, Speech, and Signal Processing*, volume 2, pages II–1481–II–1484. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2002.

Nowakowski:1978:NCS

[NT78] Jerzy Nowakowski and Andrzej Trautman. Natural connections on Stiefel bundles are sourceless gauge fields. *Journal of Mathematical Physics*, 19(5):1100–1103, May 1978. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v19/i5/p1100_s1`.

OLeary:2001:MCG

[O'L01] Dianne P. O'Leary. Methods of conjugate gradients for solving linear systems. In Lide [Lid01], pages 81–85. URL `https://nvlpubs.nist.gov/nistpubs/sp958-lide/077-080.pdf`. NIST Special Publication.

Parlett:1974:BRH

[Par74] Beresford N. Parlett. Book review: H. R. Schwarz, H. Rutishauser & E. Stiefel, translated by P. Hertelendy, *Numerical Analysis of Symmetric Matrices*, Prentice-Hall, Inc., Englewood Cliffs, N. J., 1973, xi + 276 pp., 24 cm. *Mathematics of Computation*, 28(125): 328, January 1974. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `https://www.jstor.org/stable/2005845`.

Parker:1984:STG

[Par84] Phillip E. Parker. On some theorems of Geroch and Stiefel. *Journal of Mathematical Physics*, 25(3):597–599, March 1984. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v25/i3/p597_s1`.

Pealat:2019:EMI

[PBC19] C. Pealat, G. Bouleux, and V. Cheutet. Extracting most impacting emergency department patient flow by embedding laboratory-

confirmed and clinical diagnosis on the Stiefel manifold. In *2019 IEEE EMBS International Conference on Biomedical Health Informatics (BHI)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Priestley:2010:SOM

[Pri10] Mark Priestley. *A Science of Operations: Machines, Logic and the Invention of Programming*. History of computing. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2010. ISBN 1-84882-554-4 (hardcover), 1-84882-555-2 (e-book). ix + 341 pp. LCCN QA76.6 .P737 2010.

Pitaval:2012:ISG

[PT12a] R. Pitaval and O. Tirkkonen. Incorporating Stiefel geometry in codebook design and selection for improved base station cooperation. In *2012 IEEE 75th Vehicular Technology Conference (VTC Spring)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012.

Pitaval:2012:VBH

[PT12b] R. Pitaval and O. Tirkkonen. Volume of ball and Hamming-type bounds for Stiefel manifold with Euclidean distance. In *2012 Conference Record of the Forty Sixth Asilomar Conference on Signals, Systems and Computers (ASILOMAR)*, pages 483–487. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2012.

Pitaval:2013:FOC

[PT13] R. Pitaval and O. Tirkkonen. Flag orbit codes and their expansion to Stiefel codes. In *2013 IEEE Information Theory Workshop (ITW)*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2013.

Pitaval:2014:JGS

[PT14] R. Pitaval and O. Tirkkonen. Joint Grassmann–Stiefel quantization for MIMO product codebooks. *IEEE Transactions on Wireless Communications*, 13(1):210–222, 2014. CODEN ITWCAX. ISSN 1536-1276 (print), 1558-2248 (electronic).

Pham:2008:RLD

[PV08] D. Pham and S. Venkatesh. Robust learning of discriminative projection for multicategory classification on the Stiefel manifold. In

2008 IEEE Conference on Computer Vision and Pattern Recognition, pages 1–7. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008.

Palka:2015:AEE

[PV15] T. A. Palka and R. J. Vaccaro. Asymptotically efficient estimators for multidimensional harmonic retrieval based on the geometry of the Stiefel manifold. In *2015 49th Asilomar Conference on Signals, Systems and Computers*, pages 1691–1695. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015.

Pitaval:2018:DSE

[PWTH18] R. Pitaval, L. Wei, O. Tirkkonen, and C. Hollanti. Density of spherically embedded Stiefel and Grassmann codes. *IEEE Transactions on Information Theory*, 64(1):225–248, 2018. CODEN IETTAW. ISSN 0018-9448 (print), 1557-9654 (electronic).

Qi:1996:MHS

[QHL96] Hou Duo Qi, Ji Ye Han, and Guang Hui Liu. The modified Hestenes–Stiefel conjugate gradient method. *Chinese Annals of Mathematics. Series A. Shuxue Niankan. A Ji*, 17(3):277–284, 1996. ISSN 1000-8314.

R:1965:BRI

[R.65] C. V. R. Book review: *An Introduction to Numerical Mathematics*, by Eduard L. Stiefel. (Academic Press, New York and London). 1963. Pp. 286. *Current Science*, 34(8):264, April 20, 1965. CODEN CUSCAM. ISSN 0011-3891. URL `http://www.jstor.org/stable/24063331`.

Roth-Desmeules:1961:BGBa

[RDSG61] E. Roth-Desmeules, E. Stiefel, and Hs. H. Günthard. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 12(3):277–280, May 1961. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF01592344`.

Roth-Desmeules:1961:BGBb

[RDSW+61] E. Roth-Desmeules, P. Schmid, H. Weber, W. Saxer, E. Stiefel, and J. C. Thams. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal*

of Applied Mathematics and Physics, 12(5):485–488, September 1961. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF01600705`.

Rojas:2000:FCH

[RH00] Raúl Rojas and Ulf Hashagen, editors. *The First Computers: History and Architectures*. History of computing. MIT Press, Cambridge, MA, USA, 2000. ISBN 0-262-18197-5 (hardcover), 0-585-35535-5 (electronic). xii + 457 pp. LCCN QA76.17 .F57 2000.

Rojas:1998:RKZ

[Roj98] Raúl Rojas, editor. *Die Rechenmaschinen von Konrad Zuse. (German) [The computing machines of Konrad Zuse]*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1998. ISBN 3-540-63461-4 (hardcover), 3-642-71944-9 (e-book). vii + 221 pp. LCCN QA75 .R42 1998; QA75.5-76.95; TK7885.

Rutishauser:1950:PDRa

[RSS50a] Heinz Rutishauser, Ambros Speiser, and Eduard Stiefel. Programmgesteuerte digitale Rechengeräte (elektronische Rechenmaschinen). I. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 1(5): 277–297, September 1950. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/bf02112364`.

Rutishauser:1950:PDRb

[RSS50b] Heinz Rutishauser, Ambros Speiser, and Eduard Stiefel. Programmgesteuerte digitale Rechengeräte (elektronische Rechenmaschinen). II. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 1(5): 339–362, September 1950. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/bf02112364`.

Rutishauser:1951:PDRc

[RSS51a] Heinz Rutishauser, Ambros Speiser, and Eduard Stiefel. *Programmgesteuerte digitale Rechengeräte (elektronische Rechenmaschinen). (German) [Program-controlled digital computing devices (electronic calculating machines)]*, volume 2 of *Mitteilungen aus dem Institut für angewandte Mathematik*. Birkhäuser, Cambridge, MA, USA; Berlin, Germany; Basel, Switzerland, 1951. 102 pp.

URL https://link.springer.com/article/10.1007/978-3-0348-4113-9; https://link.springer.com/book/10.1007/978-3-0348-4113-9.

Rutishauser:1951:PDRa

[RSS51b] Heinz Rutishauser, Ambros Speiser, and Eduard Stiefel. Programmgesteuerte digitale Rechengeräte (elektronische Rechenmaschinen). III. (German) [Program-controlled digital computing devices (electronic calculating machines). III]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 2(1):1–25, January 1951. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL https://link.springer.com/article/10.1007/bf02589810.

Rutishauser:1951:PDRb

[RSS51c] Heinz Rutishauser, Ambros Speiser, and Eduard Stiefel. Programmgesteuerte digitale Rechengeräte (elektronische Rechenmaschinen). IV. (German) [Program-controlled digital computing devices (electronic calculating machines). IV]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 2(2):62–92, March 1951. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL https://link.springer.com/article/10.1007/bf02589810.

Rutishauser:1968:NSM

[RSS68] Heinz Rutishauser, Eduard L. Stiefel, and Hans Rudolf Schwarz. *Numerik symmetrischer Matrizen: Matrizen-Numerik. (German) [Numerics of symmetric matrices: Matrix numerics]*, volume 11 of *Leitfäden der angewandten Mathematik und Mechanik*. B. G. Teubner, Stuttgart, Germany; Leipzig, Germany, 1968. ISSN 0459-021X. 243 pp. LCCN QA263 .S33.

Rutishauser:1972:NSM

[RSS72] H. Rutishauser, E. Stiefel, and H. R. Schwarz. *Numerik symmetrischer Matrizen. (German) [Numerics of symmetric matrices]*, volume 11 of *Leitfäden der angewandten Mathematik und Mechanik LAMM*. B. G. Teubner, Stuttgart, Germany; Leipzig, Germany, 1972. ISBN 3-519-12311-8 (print), 3-663-11341-8 (e-book). 261 pp. LCCN QA263 .S33 1972. URL https://link.springer.com/article/10.1007/978-3-663-11341-6.

Rutishauser:1955:SPT

[Rut55] Heinz Rutishauser. Some programming techniques for the ERMETH. *Journal of the ACM*, 2(1):1–4, January 1955. CODEN

JACOAH. ISSN 0004-5411 (print), 1557-735x (electronic). URL https://dl.acm.org/doi/10.1145/320789.320790.

Salleh:2016:EMH

[SA16] Zabidin Salleh and Ahmad Alhawarat. An efficient modification of the Hestenes–Stiefel nonlinear conjugate gradient method with restart property. *Journal of Inequalities and Applications*, pages Paper No. 110, 14, 2016. ISSN 1029-242X.

Stiefel:1969:SCM

[SB69] E. Stiefel and D. G. Bettis. Stabilization of Cowell's method. *Numerische Mathematik*, 13(2):154–175, May 1969. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/BF02163234.

Schmid:1969:BRF

[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).

Schmid:1970:BRF

[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).

Schwarz:1981:EYC

[Sch81] H. R. Schwarz. The early years of computing in Switzerland. *Annals of the History of Computing*, 3(2):121–132, April/June 1981. CODEN AHCOE5. ISSN 0164-1239. URL http://dlib.computer.org/an/books/an1981/pdf/a2121.pdf; http://www.computer.org/annals/an1981/a2121abs.htm.

Stiefel:1979:GMI

[SF79] Eduard Stiefel and Albert Fässler. *Gruppentheoretische Methoden und ihre Anwendung. (German) [Group theoretical methods and their application]*, volume 46 of *Leitfäden der Angewandten Mathematik und Mechanik [Guides to Applied Mathematics and Mechanics]*. B. G. Teubner, Stuttgart, Germany; Leipzig, Germany, 1979. ISBN 3-519-02348-2. 256 pp. Eine Einführung mit typischen Beispielen aus Natur- und Ingenieurwissenschaften. [An introduction with typical examples from natural and engineering sciences], Teubner Studienbücher Mathematik. [Teubner Textbooks for Mathematics].

Seddik:2017:MRM

[SGH+17] K. G. Seddik, R. H. Gohary, M. T. Hussien, M. Shaqfeh, H. Alnuweiri, and H. Yanikomeroglu. Multi-resolution multicasting over the Grassmann and Stiefel manifolds. *IEEE Transactions on Wireless Communications*, 16(8):5296–5310, 2017. CODEN ITWCAX. ISSN 1536-1276 (print), 1558-2248 (electronic).

Shi:2001:MHS

[Shi01] Zhen Jun Shi. A modified Hestenes–Stiefel conjugate gradient method and its global convergence. *Mathematica Numerica Sinica. Jisuan Shuxue*, 23(4):393–406, 2001. ISSN 0254-7791.

Sun:2015:MHS

[SL15] Min Sun and Jing Liu. A modified Hestenes–Stiefel projection method for constrained nonlinear equations and its linear convergence rate. *Journal of Applied Mathematics and Computing*, 49(1-2):145–156, 2015. ISSN 1598-5865 (print), 1865-2085 (electronic).

Sun:2018:RCP

[SLLT18] Z. Sun, Y. Lian, S. Liu, and Y. Tian. A rapidly convergent projected hestenes-stiefel conjugate gradient algorithm for optimal robust controller of bipedal walking robots. In *2018 IEEE 8th Annual International Conference on CYBER Technology in Automation, Control, and Intelligent Systems (CYBER)*, pages 1094–1099. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Snaith:1985:SWC

[Sna85] Victor Snaith. Stiefel–Whitney classes of a symmetric bilinear form — a formula of Serre. *Canadian Mathematical Bulletin = Bulletin canadien de mathématiques*, 28(2):218–222, June 1985. CODEN CMBUA3. ISSN 0008-4395 (print), 1496-4287 (electronic).

Snyman:1982:HST

[Sny82] J. A. Snyman. A Hestenes–Stiefel type method for solving nonlinear two-point boundary value problems. In *Proceedings of the eighth South African symposium on numerical mathematics (Durban, 1982)*, pages 125–137. University of Natal, Durban, South Africa, 1982. ISBN 0-86980-316-6.

Speiser:1998:EYI

[Spe98] Ambros P. Speiser. The early years of the institute: Acquisition and operation of the Z4, planning of the ERMETH. Report, Department of Computer Science, ETH Zürich, Zürich, Switzerland, 1998.

Speiser:1999:EYI

[Spe99] Ambros P. Speiser. The early years of the institute: Acquisition and operation of the Z4, planning of the ERMETH. *Mitteilungen der Gesellschaft für Angewandte Mathematik und Mechanik*, 22 (2):159–168, ???? 1999. ISSN 0936-7195.

Schwarz:2015:PQS

[SR15] S. Schwarz and M. Rupp. Predictive quantization on the Stiefel manifold. *IEEE Signal Processing Letters*, 22(2):234–238, 2015. CODEN ISPLEM. ISSN 1070-9908 (print), 1558-2361 (electronic).

Shapiee:2014:NMH

[SRMM14] Norrlaili Shapiee, Mohd Rivaie, Mustafa Mamat, and Ismail Mohd. A new modification of Hestenes–Stiefel method with descent properties. In *AIP Conference Proceedings*, volume 1602, pages 520–526. American Institute of Physics, Woodbury, NY, USA, 2014.

Schwarz:1973:NAS

[SRS73] H. R. Schwarz, H. Rutishauser, and E. Stiefel. *Numerical Analysis of Symmetric Matrices*. Prentice-Hall, Upper Saddle River, NJ

07458, USA, 1973. ISBN 0-13-626556-1. xi + 276 pp. LCCN QA263 .S3313.

Stiefel:1968:RDM

[SS68] Eduard Stiefel and Gerhard Scheifele. Régularisation du mouvement képlerien perturbé dans l'espace à trois dimensions par une transformation canonique généralisée. (French) [Regularization of the perturbed Keplerian motion in three-dimensional space by a generalized canonical transformation]. *Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences. Séries A et B*, 267:A950–A953, 1968. CODEN CHASAP. ISSN 0151-0509.

Stiefel:1971:LRC

[SS71] E. L. Stiefel and G. Scheifele. *Linear and regular celestial mechanics. Perturbed two-body motion, numerical methods, canonical theory*, volume 174 of *Die Grundlehren der mathematischen Wissenschaften*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1971. ISBN 3-540-05119-8 (Berlin), 0-387-05119-8 (New York). ISSN 0072-7830 (print), 2196-9701 (electronic). ix + 301 pp. LCCN QA3 .G7 v.174l QB351 .S758.

Shtifel:1975:CLN

[SS75] E. Shtifel′and G. Seĭfele. *Lineĭ naya i regulyarnaya nebesnaya mekhanika. (Russian) [Linear and regular celestial mechanics]*. Nauka, Moscow, USSR, 1975. 303 pp. Vozmushchennaya zadacha dvukh tel. Chislennye metody. Kanonicheskaya teoriya. [Perturbed two-body problem. Numerical methods. Canonical theory], Translated from the English by P. A. Ageev. Edited by V. A. Brumberg.

Saad:1980:PBS

[SS80] Y. Saad and A. H. Sameh. A parallel block Stiefel method for solving positive definite systems. In M. H. Schultz, editor, *Proc. Elliptic Problem Solver Conf.*, pages 405–412. Academic Press, New York, NY, USA, 1980.

Stiefel:1963:BGB

[SSG+63] E. Stiefel, W. Saxer, W. Gerber, H. Rutishauser, P. Junod, U. Hochstrasser, W. Furrer, G. Epprecht, Ch. Clavuot, and W. Schumann. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 14(1):97–100, January 1963.

CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL https://link.springer.com/article/10.1007/BF01601151.

Stiefel:1976:PCP

[SSK76] E. Stiefel, V. Szebehely, and U. Kirchgraber. Preface to conference proceedings. *Celestial Mechanics*, 14(1):3, March 1976. CODEN CLMCAV. ISSN 0008-8714 (print), 2214-7284 (electronic). URL https://link.springer.com/article/10.1007/bf01247125.

Stiefel:1980:PCP

[SSK80] E. Stiefel, V. Szebehely, and U. Kirchgraber. Preface to conference proceedings. *Celestial Mechanics*, 21(1):6, January 1980. CODEN CLMCAV. ISSN 0008-8714 (print), 2214-7284 (electronic). URL https://link.springer.com/article/10.1007/BF01230239.

Stiefel:1966:BGB

[SSP+66] E. Stiefel, W. Saxer, W. Prager, H. Ziegler, and R. Rösel. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 17(2):366–368, March 1966. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL https://link.springer.com/article/10.1007/BF01601408.

Szebehely:1980:ES

[SSWK80] V. Szebehely, D. Saari, J. Waldvogal, and U. Kirchgrabe. Eduard L. Stiefel (1909–1978). *Celestial Mechanics*, 21(1):2–4, January 1980. CODEN CLMCAV. ISSN 0008-8714 (print), 2214-7284 (electronic). URL http://link.springer.com/article/10.1007/BF01230237; https://link.springer.com/article/10.1007/BF01230237.

Szebehely:1976:LTP

[ST76] V. Szebehely and B. D. Tapley, editors. *Long-Time Predictions in Dynamics: Proceedings of the NATO Advanced Study Institute held in Cortina d'Ampezzo, Italy, August 3–16, 1975*, volume 26 of *NATO Advanced Study Institutes Series, Series C – Mathematical and Physical Sciences*. Springer Netherlands, Dordrecht, The Netherlands, 1976. ISBN 94-010-1493-0 (e-book), 94-010-1495-7 (print). ISSN 1389-2185. LCCN QB4.

Stetter:1969:BRH

[Ste69] H. J. Stetter. Book review: H. R. Schwarz, H. Rutishauser und E. Stiefel, Numerik symmetrischer Matrizen (Leitfaden der ange-

wandten Mathematik und Mechanik, Bd. 11). *Computing*, 4(4): 386, December 1969. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Stiefel:1935:RFDa

[Sti35a] Eduard Stiefel. *Richtungsfelder und Fernparallelismus in n-dimensionalen Mannigfaltigkeiten. (German) [Directional fields remote parallelism in n-dimensional manifolds].* Diss. Math. thesis, Eidgenössische Technische Hochschule Zürich (ETH-Z), Zürich, Switzerland, 1935. 51 pp.

Stiefel:1935:RFDb

[Sti35b] Eduard Stiefel. Richtungsfelder und Fernparallelismus in n-dimensionalen Mannigfaltigkeiten. (German) [Directional fields remote parallelism in n-dimensional manifolds]. *Commentarii Mathematici Helvetici (Zurich)*, 8(1):305–353, December 1935. CODEN COMHAX. ISSN 0010-2571 (print), 1420-8946 (electronic). URL `https://link.springer.com/article/10.1007/BF01199559`.

Stiefel:1937:SPG

[Sti37] E. Stiefel. Zum Satz von Pohlke. (German) [On Pohlke's theorem]. *Commentarii Mathematici Helvetici (Zurich)*, 10(1):208–225, December 1937. CODEN COMHAX. ISSN 0010-2571 (print), 1420-8946 (electronic). URL `https://link.springer.com/article/10.1007/BF01214289`.

Stiefel:1941:BZG

[Sti41a] E. Stiefel. Über eine Beziehung zwischen geschlossenen Lie'schen Gruppen und diskontinuierlichen Bewegungsgruppen euklidischer Räume und ihre Anwendung auf die Aufzählung der einfachen Lie'schen Gruppen. (German) [On a relation between closed Lie groups and discontinuous movement groups of Euclidean spaces and their application to the enumeration of the simple Lie groups]. *Commentarii Mathematici Helvetici (Zurich)*, 14:350–380, December 1941. CODEN COMHAX. ISSN 0010-2571 (print), 1420-8946 (electronic). URL `https://link.springer.com/article/10.1007/BF02565625`.

Stiefel:1941:RPR

[Sti41b] Eduard Stiefel. Über Richtungsfelder in den projektiven Räumen und einen Satz aus der reellen Algebra. (German) [On directional fields in the projective spaces and a theorem from real algebra].

Commentarii Mathematici Helvetici (Zurich), 13:201–218, 1941. CODEN COMHAX. ISSN 0010-2571 (print), 1420-8946 (electronic). URL `https://link.springer.com/article/10.1007/BF01378061`.

Stiefel:1944:KBC

[Sti44] E. Stiefel. Kristallographische Bestimmung der Charaktere der geschlossenen Lie'schen Gruppen. (German) [Crystallographic determination of the characters of the closed Lie groups]. *Commentarii Mathematici Helvetici (Zurich)*, 17:165–200, 1944. CODEN COMHAX. ISSN 0010-2571 (print), 1420-8946 (electronic). URL `https://link.springer.com/article/10.1007/BF02566240`.

Stiefel:1947:LDG

[Sti47] Eduard Stiefel. *Lehrbuch der darstellenden Geometrie. (German) [Textbook of descriptive geometry]*, volume 11 of *Lehrbücher und Monographien aus dem Gebiete der exakten Wissenschaften*. Birkhäuser, Cambridge, MA, USA; Berlin, Germany; Basel, Switzerland, 1947. 173 pp.

Stiefel:1949:NBG

[Sti49] E. Stiefel. Sur les nombres de Betti des groupes de Lie clos. (French) [On the Betti numbers of closed Lie groups]. In *Topologie algébrique*, Colloques Internationaux du Centre National de la Recherche Scientifique, no. 12, pages 97–101. Centre de la Recherche Scientifique, Paris, France, 1949.

Stiefel:1950:PER

[Sti50] E. Stiefel. Die programmgesteuerte elektromechanische Rechenmaschine der ETH. (German) [The program-controlled electromechanical calculating machine at ETH]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 1(5):334–335, September 1950. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF02112368`.

Stiefel:1951:KGR

[Sti51] E. Stiefel. Kongresse auf dem Gebiet der reinen und angewandten Mathematik. (German) [Congresses in the field of pure and applied mathematics]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 2(4):301–302, 1951. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF02579694`.

Stiefel:1952:CRE

[Sti52a] E. Stiefel. On Cauchy–Riemann equations in higher dimensions. *Journal of Research of the National Bureau of Standards (1934)*, 48:395–398, 1952. ISSN 0160-1741 (print), 2376-5259 (electronic).

Stiefel:1952:TAG

[Sti52b] E. Stiefel. Two applications of group characters to the solution of boundary-value problems. *Journal of Research of the National Bureau of Standards (1934)*, 48:424–427, 1952. ISSN 0160-1741 (print), 2376-5259 (electronic).

Stiefel:1952:EMR

[Sti52c] Eduard Stiefel. Über einige Methoden der Relaxationsrechnung. (German) [On some methods of relaxation calculation]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 3:1–33, 1952. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/bf02080981`.

Stiefel:1953:OMB

[Sti53a] E. Stiefel. 3. Österreichischer Mathematikerkongress vom 9. bis 14. September 1952 in Salzburg. (German) [3. Austrian Congress of Mathematicians from 9th to 14th September 1952 in Salzburg]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 4(1):86–87, January 1953. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF02075309`.

Stiefel:1953:MCA

[Sti53b] E. Stiefel. La machine à calculer arithmétique "Z4" de l'Ecole Polytechnique Fédérale à Zurich (Suisse) et son application à la résolution d'une équation aux dérivées partielles de type elliptique. (French) [The arithmetic calculator "Z4" of the Swiss Federal Polytechnical University in Zurich (Switzerland) and its application to the solution of an elliptical type partial derivative equation]. In *Les machines à calculer et la pensée humaine*, Colloques internationaux du Centre National de la Recherche Scientifique, no 37, pages 33–40. Centre National de la Recherche Scientifique, Paris, France, 1953.

Stiefel:1953:ITF

[Sti53c] E. Stiefel. Zur Interpolation von tabellierten Funktionen durch Exponentialsummen und zur Berechnung von Eigenwerten aus den Schwarzschen Konstanten. (German) [On interpolation of tabulated functions by exponential sums and on the calculation of eigenvalues from the Schwarz's constants]. *Zeitschrift für Angewandte Mathematik und Mechanik*, 33:260–262, 1953. CODEN ZAMMAX. ISSN 0044-2267 (print), 1521-4001 (electronic).

Stiefel:1953:AAG

[Sti53d] Eduard Stiefel. Ausgleichung ohne Aufstellung der Gausschen Normalgleichungen. (German) [Adjustment without exhibiting the Gaussian normal equations]. *Wiss. Z. Tech. Hochsch. Dresden*, 2:441–442, 1953.

Stiefel:1953:SSM

[Sti53e] Eduard Stiefel. Some special methods of relaxation technique. In *Simultaneous linear equations and the determination of eigenvalues*, National Bureau of Standards Applied Mathematics Series, No. 29, pages 43–48. United States Government Printing Office, Washington, DC, USA, 1953.

Stiefel:1954:EAS

[Sti54] E. Stiefel. Ermittlung von allgemeinen Störungen einer Planetenbewegung mit Hilfe der Ergebnisse einer speziellen Störungsrechnung. (German) [Determination of general disturbances of a planetary motion with help the results of a special disturbance calculation]. *Archiv der Mathematik*, 5(4–6):347–354, August 1954. CODEN ACVMAL. ISSN 0003-889x (print), 1420-8938 (electronic). URL `https://link.springer.com/article/10.1007/BF01898376`.

Stiefel:1955:BOM

[Sti55a] E. Stiefel. Bemerkung zur obigen Mitteilung von Herrn M. Hosszu. (German) [Comment on the message above from Mr. M. Hosszu]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 6(2):144–145, March 1955. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF01607303`.

Stiefel:1955:ERB

[Sti55b] E. Stiefel. Elektronische Rechenautomaten als Beispiel zur allgemeinen Kybernetik. (German) [Electronic calculators as example for general cybernetics]. *Actes Soc. Helv. Sci. Nat.*, 135:53–62, 1955. ISSN 0080-7362.

Stiefel:1955:RBS

[Sti55c] E. Stiefel. Relaxationsmethoden bester Strategie zur Lösung linearer Gleichungssysteme. (German) [Relaxation methods' best strategy for solving linear systems of equations]. *Commentarii Mathematici Helvetici (Zurich)*, 29(1):157–179, December 1955. CODEN COMHAX. ISSN 0010-2571 (print), 1420-8946 (electronic). URL `https://link.springer.com/article/10.1007/BF02564277`.

Stiefel:1955:RID

[Sti55d] Eduard Stiefel. *Rechenautomaten im Dienste der Technik. Erfahrungen mit dem Zuse-Rechenautomaten Z4. (German) [Calculating machines in the service of technology. Experience with the Zuse-calculator Z4]*, volume 45 of *Arbeitsgemeinschaft für Forschung des Landes Nordrhein-Westfalen. Heft*. Westdeutscher Verlag, Cologne and Opladen, West Germany, 1955. 29–45; Diskussion 47–65 pp.

Stiefel:1955:KPL

[Sti55e] Eduard L. Stiefel. *Kernel polynomials in linear algebra and their numerical applications. Four lectures on solving linear equations and determining eigenvalues*. U.S. National Bureau of Standards, Gaithersburg, MD, USA, 1955. 52 pp.

Stiefel:1956:CIC

[Sti56a] E. Stiefel. Congrès international de cybernétique. (French) [International Congress of Cybernetics]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 7(2):170, March 1956. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF01600789`.

Stiefel:1956:SFI

[Sti56b] E. Stiefel. On solving Fredholm integral equations. Applications to conformal mapping and variational problems of potential theory. *Journal of the Society for Industrial and Applied Mathematics*, 4 (2):63–85, June 1956. CODEN JSIMAV. ISSN 0368-4245 (print),

1095-712X (electronic). URL https://www.jstor.org/stable/2098726.

Stiefel:1957:ETV

[Sti57a] E. Stiefel. Einführung in die Theorie der verallgemeinerten Funktionen (Distributionen) als mathematisches Werkzeug zur Behandlung linearer Regelungen. (German) [Introduction to the theory of generalized functions (distributions) as a mathematical tool for handling linear controls]. *Bull. Schweiz. Elektrotechn. Vereins*, 1957(15):3–8, 1957. ISSN 0036-1321.

Stiefel:1957:RDR

[Sti57b] E. Stiefel. Recent developments in relaxation techniques. In *Proceedings of the International Congress of Mathematicians, Amsterdam, 1954, Vol. 1*, pages 384–391. Erven P. Noordhoff N.V. and North-Holland Publishing Co., Groningen and Amsterdam, The Netherlands, 1957.

Stiefel:1958:KPL

[Sti58] Eduard L. Stiefel. Kernel polynomials in linear algebra and their numerical applications. In *Further Contributions to the Solution of Simultaneous Linear Equations and the Determination of Eigenvalues*, volume 49 of *National Bureau of Standards. Applied Mathematics Series*, pages 1–22. U.S. National Bureau of Standards, Gaithersburg, MD, USA, 1958. ISSN 0083-1786.

Stiefel:1959:IKN

[Sti59a] E. Stiefel. Internationale Konferenz für numerische Informationsverarbeitung, 15.–20. Juni 1959 in Paris. (German) [International Conference for Numerical Information Processing, 15th–20th June 1959 in Paris]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 10 (1):104, January 1959. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL https://link.springer.com/article/10.1007/BF01637210.

Stiefel:1959:SAB

[Sti59b] E. Stiefel. The self-adjoint boundary value problem. In *Refined Iterative Methods for Computation of the Solution and the Eigenvalues of Self-adjoint Boundary Value Problems* [EGRS59b], pages 7–23. ISBN 3-0348-7224-0 (e-book), 3-0348-7226-7. ISSN 0514-8146. LCCN QA3 .Z8 v.8; QA371. URL http://link.springer.com/chapter/10.1007/978-3-0348-7224-9_1.

Stiefel:1959:DLT

[Sti59c] E. Stiefel. Über diskrete und lineare Tschebyscheff-Approximationen. (German) [On discrete and linear Chebyshev approximations]. *Numerische Mathematik*, 1:1–28, December 1959. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/BF01386369`.

Stiefel:1959:NMT

[Sti59d] Eduard L. Stiefel. Numerical methods of Tchebycheff approximation. In Langer [Lan59], pages 217–232. LCCN QA3 .U45 no. 1. Publication no. 1 of the Mathematics Research Center, U.S. Army, the University of Wisconsin.

Stiefel:1960:NJE

[Sti60] E. Stiefel. Note on Jordan elimination, linear programming and Tchebycheff approximation. *Numerische Mathematik*, 2(1): 1–17, December 1960. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/BF01386203`.

Stiefel:1961:ANN

[Sti61a] E. Stiefel. Altes und Neues über numerische Quadratur. (German) [Old and new on numerical quadrature]. *Zeitschrift für Angewandte Mathematik und Mechanik*, 41:408–413, 1961. CODEN ZAMMAX. ISSN 0044-2267 (print), 1521-4001 (electronic).

Stiefel:1961:ENM

[Sti61b] E. Stiefel. *Einführung in die numerische Mathematik. (German) [Introduction to Numerical Mathematics]*. Leitfäden der angewandten Mathematik und Mechanik, Bd. 2. B. G. Teubner, Stuttgart, Germany; Leipzig, Germany, 1961. 234 pp.

Stiefel:1963:ENM

[Sti63a] Eduard Stiefel. *Einführung in die numerische Mathematik. (German) [Introduction to Numerical Mathematics]*. Zweite, überarbeitete Auflage. B. G. Teubner, Stuttgart, Germany; Leipzig, Germany, second edition, 1963. 235 pp.

Stiefel:1963:ALR

[Sti63b] Eduard L. Stiefel. Additional literature-references in English. In *An Introduction to Numerical Mathematics* [Sti63h], pages 279–280. ISBN 1-4832-0038-8 (print), 1-4832-2541-0 (e-book).

LCCN QA297 .S813 1963. URL https://www.sciencedirect.com/science/article/pii/B9781483200385500156.

Stiefel:1963:ACE

[Sti63c] Eduard L. Stiefel. Appendix I — computational examples. In *An Introduction to Numerical Mathematics* [Sti63h], pages 255–263. ISBN 1-4832-0038-8 (print), 1-4832-2541-0 (e-book). LCCN QA297 .S813 1963. URL https://www.sciencedirect.com/science/article/pii/B9781483200385500120.

Stiefel:1963:AIT

[Sti63d] Eduard L. Stiefel. Appendix II — tables. In *An Introduction to Numerical Mathematics* [Sti63h], pages 264–275. ISBN 1-4832-0038-8 (print), 1-4832-2541-0 (e-book). LCCN QA297 .S813 1963. URL https://www.sciencedirect.com/science/article/pii/B9781483200385500132.

Stiefel:1963:A

[Sti63e] Eduard L. Stiefel. Approximations. In *An Introduction to Numerical Mathematics* [Sti63h], chapter 7, pages 218–253. ISBN 1-4832-0038-8 (print), 1-4832-2541-0 (e-book). LCCN QA297 .S813 1963. URL https://www.sciencedirect.com/science/article/pii/B9781483200385500119.

Stiefel:1963:DE

[Sti63f] Eduard L. Stiefel. Differential equations. In *An Introduction to Numerical Mathematics* [Sti63h], chapter 6, pages 139–217. ISBN 1-4832-0038-8 (print), 1-4832-2541-0 (e-book). LCCN QA297 .S813 1963. URL http://www.sciencedirect.com/science/book/9781483200385.

Stiefel:1963:EP

[Sti63g] Eduard L. Stiefel. Eigenvalue problems. In *An Introduction to Numerical Mathematics* [Sti63h], chapter 5, pages 113–138. ISBN 1-4832-0038-8 (print), 1-4832-2541-0 (e-book). LCCN QA297 .S813 1963. URL https://www.sciencedirect.com/science/article/pii/B9781483200385500090.

Stiefel:1963:INM

[Sti63h] Eduard L. Stiefel. *An Introduction to Numerical Mathematics*. Translated by Werner C. Rheinboldt and Cornelie J. Rheinboldt. Academic Press, New York, NY, USA, 1963. ISBN 1-4832-0038-8 (print), 1-4832-2541-0 (e-book). x + 286 pp. LCCN QA297

.S813 1963. URL http://www.sciencedirect.com/science/book/9781483200385.

Stiefel:1963:LSA

[Sti63i] Eduard L. Stiefel. Least-squares approximation and definite problem. In *An Introduction to Numerical Mathematics* [Sti63h], chapter 3, pages 51–71. ISBN 1-4832-0038-8 (print), 1-4832-2541-0 (e-book). LCCN QA297 .S813 1963. URL https://www.sciencedirect.com/science/article/pii/B9781483200385500077.

Stiefel:1963:LA

[Sti63j] Eduard L. Stiefel. Linear algebra. In *An Introduction to Numerical Mathematics* [Sti63h], chapter 1, pages 1–21. ISBN 1-4832-0038-8 (print), 1-4832-2541-0 (e-book). LCCN QA297 .S813 1963. URL https://www.sciencedirect.com/science/article/pii/B9781483200385500053.

Stiefel:1963:LP

[Sti63k] Eduard L. Stiefel. Linear programming. In *An Introduction to Numerical Mathematics* [Sti63h], chapter 2, pages 22–50. ISBN 1-4832-0038-8 (print), 1-4832-2541-0 (e-book). LCCN QA297 .S813 1963. URL http://www.sciencedirect.com/science/book/9781483200385.

Stiefel:1963:LR

[Sti63l] Eduard L. Stiefel. Literature-references. In *An Introduction to Numerical Mathematics* [Sti63h], pages 277–278. ISBN 1-4832-0038-8 (print), 1-4832-2541-0 (e-book). LCCN QA297 .S813 1963. URL https://www.sciencedirect.com/science/article/pii/B9781483200385500144.

Stiefel:1963:NA

[Sti63m] Eduard L. Stiefel. Nonlinear algebra. In *An Introduction to Numerical Mathematics* [Sti63h], chapter 4, pages 72–112. ISBN 1-4832-0038-8 (print), 1-4832-2541-0 (e-book). LCCN QA297 .S813 1963. URL http://www.sciencedirect.com/science/book/9781483200385.

Stiefel:1964:RHG

[Sti64a] E. Stiefel. Die Renaissance der Himmelsmechanik. (German) [The renaissance of celestial mechanics]. *Elemente der Mathematik*, 19: 97–106, 1964. ISSN 0013-6018 (print), 1420-8962 (electronic).

Stiefel:1964:MON

[Sti64b] E. Stiefel. Methods — old and new — for solving the Tchebycheff approximation problem. *Journal of the Society for Industrial and Applied Mathematics: Series B, Numerical Analysis*, 1(??):164–176, ???? 1964. ISSN 0887-459X (print), 1095-7170 (electronic). URL `https://www.jstor.org/stable/2949773`.

Stiefel:1965:NNM

[Sti65a] E. Stiefel. Neuere numerische Methoden in der Himmelsmechanik. (German) [Newer numerical methods in celestial mechanics]. *Nordisk Tidskrift for Informationsbehandling*, 5(1):51–60, March 1965. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `https://link.springer.com/article/10.1007/BF01975723`.

Stiefel:1965:PMP

[Sti65b] E. Stiefel. Phase methods for polynomial approximation. In *Approximation of Functions (Proc. Sympos. General Motors Res. Lab., 1964)*, pages 68–82. Elsevier, Amsterdam, The Netherlands, 1965.

Stiefel:1965:ENM

[Sti65c] Eduard Stiefel. *Einführung in die numerische Mathematik. (German) [Introduction to Numerical Mathematics]*. Dritte, erweiterte Auflage. Leitfäden der angewandten Mathematik und Mechanik, Band 2. B. G. Teubner, Stuttgart, Germany; Leipzig, Germany, third edition, 1965. 257 pp.

Stiefel:1967:IMN

[Sti67] Eduard Stiefel. *Introduction à la mathématique numérique. (French) [Introduction to Numerical Mathematics]*. Traduit de l′allemand par Monique Delchambre, Henri Bastin et Paul Janssens. Dunod, Paris, France, 1967. xii + 305 pp.

Stiefel:1969:ENM

[Sti69] Eduard Stiefel. *Einführung in die numerische Mathematik. (German) [Introduction to Numerical Mathematics]*. Vierte durchgesehene Auflage. Leitfäden der angewandten Mathematik und Mechanik, Band 2. B. G. Teubner, Stuttgart, Germany; Leipzig, Germany, fourth edition, 1969. 257 pp.

Stiefel:1970:OCC

[Sti70a] E. Stiefel. The Oberwolfach conferences on celestial mechanics. *Celestial Mechanics*, 2(3):273, September 1970. CODEN CLMCAV. ISSN 0008-8714 (print), 2214-7284 (electronic). URL `https://link.springer.com/article/10.1007/BF01235120`.

Stiefel:1970:RNI

[Sti70b] E. Stiefel. Remarks on numerical integration of Keplerian orbits. *Celestial Mechanics*, 2(3):274–281, September 1970. CODEN CLMCAV. ISSN 0008-8714 (print), 2214-7284 (electronic). URL `https://link.springer.com/article/10.1007/BF01235121`.

Stiefel:1971:LDG

[Sti71] Eduard Stiefel. *Lehrbuch der darstellenden Geometrie. (German) [Textbook of descriptive geometry]*, volume 6 of *Mathematische Reihe*. Birkhäuser, Cambridge, MA, USA; Berlin, Germany; Basel, Switzerland, third edition, 1971. ISBN 3-0348-7369-7, 3-0348-7370-0 (print). LCCN QA1-939. URL `https://link.springer.com/article/10.1007/978-3-0348-7369-7`.

Stiefel:1972:BGM

[Sti72a] E. Stiefel. Buchbesprechung: *Gleichungen der mathematischen Physik*, von W. S. Wladimirov (Deutscher Verlag der Wissenschaften, Berlin 1971). 379 S., 75 Fig.; 36,50 M). (German) [*Equations of mathematical physics*]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 23(4):712, July 1972. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF01593994`.

Stiefel:1972:EGI

[Sti72b] Prof. Dr. E. Stiefel. Einführung. (German) [introduction]. *Ingenieur-Archiv*, 41(S1):3, January 1972. CODEN INARAS. ISSN 0020-1154. URL `https://link.springer.com/article/10.1007/BF00716222`.

Stiefel:1973:FOC

[Sti73a] E. Stiefel. The Fourth Oberwolfach Conference on Celestial Mechanics. *Celestial Mechanics*, 8(2):155, September 1973. CODEN CLMCAV. ISSN 0008-8714 (print), 2214-7284 (electronic). URL `https://link.springer.com/article/10.1007/BF01231407`.

Stiefel:1973:LTP

[Sti73b] E. Stiefel. A linear theory of the perturbed two-body problem (regularization). In Tapley and Szebehely [TS73], pages 3–20. ISBN 94-010-2613-0 (print), 94-010-2611-4 (e-book). ISSN 0067-0057. LCCN QB351. URL `http://link.springer.com/chapter/10.1007/978-94-010-2611-6_1`.

Stiefel:1975:RSS

[Sti75] Eduard Stiefel. Remark on sums of squares in dynamics. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 26:125–126, 1975. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF01596285`.

Stiefel:1976:TNG

[Sti76a] E. Stiefel. From the theory of numbers via gyroscopes and Lie algebras to linear celestial mechanics. In Szebehely and Tapley [ST76], pages 3–15. ISBN 94-010-1493-0 (e-book), 94-010-1495-7 (print). ISSN 1389-2185. LCCN QB4. URL `http://link.springer.com/chapter/10.1007/978-94-010-1493-9_1`.

Stiefel:1976:RNI

[Sti76b] E. Stiefel. Remarks on the numerical integration of near-parabolic orbits. *Celestial Mechanics*, 14(1):85–90, March 1976. CODEN CLMCAV. ISSN 0008-8714 (print), 2214-7284 (electronic). URL `https://link.springer.com/article/10.1007/BF01247134`.

Stiefel:1976:ENM

[Sti76c] Eduard Stiefel. *Einführung in die numerische Mathematik. (German) [Introduction to Numerical Mathematics]*, volume 2 of *LAMM Leitfäden der Angewandten Mathematik und Mechanik; Teubner Studienbücher. Mathematik*. B. G. Teubner, Stuttgart, Germany; Leipzig, Germany, fifth edition, 1976. ISBN 3-519-12039-9. 292 pp. Mit Beiträgen von Hans-Rudolf Schwarz, Fünfte, erweiterte Auflage, Leitfäden der Angewandten Mathematik und Mechanik, Band 2, Teubner Studienbücher, Mathematik.

Strang:1961:BRR

[Str61] W. Gilbert Strang. Book review: *Refined iterative methods for computation of the solution and the eigenvalues of self-adjoint boundary value problems*. By M. Engeli, Th. Ginsburg, H. Rutishauser, E. Stiefel. Birkhäuser Verlag, Basel, Stuttgart,

1959. 107 pp. \$3.95. *Quarterly of Applied Mathematics*, 18(4): 374, 386, January 1961. CODEN QAMAAY. ISSN 0033-569X (print), 1552-4485 (electronic). URL `https://www.jstor.org/stable/43634808`.

Strutt:1972:PHC

[Str72] Joseph Strutt. Projective homotopy classes of Stiefel manifolds. *Canadian Journal of Mathematics = Journal canadien de mathématiques*, 24(??):465–476, ???? 1972. CODEN CJMAAB. ISSN 0008-414X (print), 1496-4279 (electronic).

Svejgaard:1962:BRE

[Sve62] Bjarner Svejgaard. Book review: Eduard Stiefel, *Einführung in die numerische Mathematik*, B. G. Teubner Verlagsgesellschaft, Stuttgart 1961. 234 S., 36 Fig. *Nordisk Matematisk Tidskrift*, 10 (4):211–213, 1962. ISSN 0029-1412. URL `http://www.jstor.org/stable/24524840`.

Svrtan:1993:NPO

[Svr93] Dragutin Svrtan. New plethysm operation, Chern characters of exterior and symmetric powers with applications to Stiefel-Whitney classes of Grassmannians. *Theoretical Computer Science*, 117(1–2):289–301, August 30, 1993. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic). URL `http://www.elsevier.com/cgi-bin/cas/tree/store/tcs/cas_sub/browse/browse.cgi?year=1993&volume=117&issue=1-2&aid=1428`.

Stiefel:1965:PRT

[SW65] Eduard Stiefel and Jörg Waldvogel. Problème restreint des trois corps. Généralisation de la régularisation de Birkhoff pour le mouvement du mobile dans l'espace à trois dimensions. (French) [Restricted problem of three bodies. Generalization of the Birkhoff regularization for the motion of the mobile in three-dimensional space]. *Comptes rendus de l'Académie des sciences, Paris*, 260: 805, 1965. ISSN 0001-4036 (print), 2419-6304 (electronic).

Solo:2019:NMS

[SW19] V. Solo and Z. Wang. Numerical methods for stochastic differential equations in Stiefel manifolds via the Cayley transform. In *2019 IEEE 58th Conference on Decision and Control (CDC)*, pages 3303–3038. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Stiefel:1950:NEG

[SZ50] Eduard Stiefel and Hans Ziegler. Natürliche Eigenwertprobleme. I. (German) [Natural eigenvalue problems. I]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 1:111–138, 1950. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/bf02009323`.

Tan:2019:LSP

[THY+19] M. Tan, Z. Hu, Y. Yan, J. Cao, D. Gong, and Q. Wu. Learning sparse PCA with stabilized ADMM method on Stiefel manifold. *IEEE Transactions on Knowledge and Data Engineering*, page 1, 2019. CODEN ITKEEH. ISSN 1041-4347 (print), 1558-2191 (electronic).

Todd:1952:BRP

[Tod52] John Todd. Book review: *Programmgesteuerte digitale Rechengeräte (elektronische Rechenmaschinen)*, By H. Ruthishauser, A. Speiser, and E. Stiefel. (Mitteilungen aus dem Institut fur angewandte Mathematik, no. 2.) Basel, Birkhäuser, 1951. 102 pp. 8.50 Swiss fr. *Bulletin of the American Mathematical Society*, 58(2):278–279, March 1952. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881X (electronic).

Tapley:1973:RAD

[TS73] B. D. Tapley and V. Szebehely, editors. *Recent Advances in Dynamical Astronomy: Proceedings of the NATO Advanced Study Institute in Dynamical Astronomy Held in Cortina D'Ampezzo, Italy, August 9–21, 1972*, volume 39 of *Astrophysics and Space Science Library, A Series of Books on the Recent Developments of Space Science and of General Geophysics and Astrophysics Published in Connection with the Journal Space Science Reviews*. Springer Netherlands, Dordrecht, The Netherlands, 1973. ISBN 94-010-2613-0 (print), 94-010-2611-4 (e-book). ISSN 0067-0057. LCCN QB351.

Traupel:1963:BGB

[TTB+63] W. Traupel, J. C. Thams, G. T. Barnes, Y. N. Chen, E. Stiefel, E. Roth-Desmeules, and W. Känzig. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 14(3):298–300, May 1963. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-

9039 (electronic). URL `https://link.springer.com/article/10.1007/BF01601069`.

Tuong:1978:EDT

[Tuo78] Ton That Tuong. Explicit decomposition of tensor products of certain analytic representations of symplectic groups. *Journal of Mathematical Physics*, 19(12):2514–2519, December 1978. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v19/i12/p2514_s1`.

Turaga:2008:SAS

[TVC08] P. Turaga, A. Veeraraghavan, and R. Chellappa. Statistical analysis on Stiefel and Grassmann manifolds with applications in computer vision. In *2008 IEEE Conference on Computer Vision and Pattern Recognition*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2008.

Turaga:2011:SCG

[TVSC11] P. Turaga, A. Veeraraghavan, A. Srivastava, and R. Chellappa. Statistical computations on Grassmann and Stiefel manifolds for image and video-based recognition. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 33(11):2273–2286, 2011.

Tompkins:2007:BFS

[TW07] F. Tompkins and P. J. Wolfe. Bayesian filtering on the Stiefel manifold. In *2007 2nd IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing*, pages 261–264. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2007.

Ulfarsson:2011:SVR

[US11] M. O. Ulfarsson and V. Solo. Sparse variable reduced rank regression via Stiefel optimization. In *2011 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 3892–3895. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2011.

Uschmajew:2008:WPC

[Usc08] André Uschmajew. Well-posedness of convex maximization problems on Stiefel manifolds and orthogonal tensor product approximations. *Numerische Mathematik*, 110(2):309–331, Au-

gust 2008. CODEN NUMMA7. ISSN ???? URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=110&issue=2&spage=309.

Wang:2023:CST

[Wan23] Xiaoliang Wang. A class of spectral three-term descent Hestenes–Stiefel conjugate gradient algorithms for large-scale unconstrained optimization and image restoration problems. *Applied Numerical Mathematics: Transactions of IMACS*, 192(??):41–56, October 2023. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0168927423001538.

Wei:2010:MHS

[WHT10] Zeng Xin Wei, Hai Dong Huang, and Yan Rong Tao. A modified Hestenes–Stiefel conjugate gradient method and its convergence. *Journal of Mathematical Research and Exposition*, 30(2):297–308, 2010. ISSN 1000-341X.

Waldvogel:1979:ES

[WKSH79] J. Waldvogel, U. Kirchgraber, H. R. Schwarz, and P. Henrici. Eduard Stiefel (1909–1978). *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 30(2):133–142 + 1, 1979. CODEN ZAMPA8. ISSN 0044-2275 (print), 1420-9039 (electronic). URL http://link.springer.com/article/10.1007/BF01601950. With a bibliography and comments on the bibliography by Stiefel.

Woods:1962:BRE

[Woo62] L. C. Woods. Book review: *Einführung in die numerische Mathematik*. By Eduard Stiefel. Pp. 234 (B. G. Teubner, Stuttgart). *Mathematical Gazette*, 46(358):341, December 1962. CODEN MAGAAS. ISSN 0025-5572 (print), 2056-6328 (electronic). URL http://www.jstor.org/stable/3611805.

Weber:1956:BGB

[WRDG+56] H. Weber, E. Roth-Desmeules, Ed. Gerecke, E. Stiefel, H. Rutishauser, M. Jeger, W. Hoppe, H. Favre, J. Zeller, and A. A. Rusterholz. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 7(3):265–272, May 1956. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL https://link.springer.com/article/10.1007/BF02044475.

Waldmeier:1962:BGB

[WRDT+62] M. Waldmeier, E. Roth-Desmeules, E. Thury, W. Epprecht, G. T. Barnes, J. L. Olsen, W. Saxer, E. Stiefel, H. Labhart, W. Traupel, and R. Jost. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 13(5):522–528, September 1962. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF01601082`.

Wang:2017:TNS

[WSH+17] Guofang Wang, Rui Shan, Wei Huang, Wen Liu, and Jingyi Zhao. Two new spectral conjugate gradient algorithms based on Hestenes–Stiefel. *Journal of Algorithms & Computational Technology*, 11(4):345–352, 2017. ISSN 1748-3018 (print), 1748-3026 (electronic).

Yin:2015:NLR

[YGG15] M. Yin, J. Gao, and Y. Guo. Nonlinear low-rank representation on Stiefel manifolds. *Electronics Letters*, 51(10):749–751, 2015. CODEN ELLEAK. ISSN 0013-5194 (print), 1350-911X (electronic).

Yuan:2016:MHS

[YML16] Gonglin Yuan, Zehong Meng, and Yong Li. A modified Hestenes and Stiefel conjugate gradient algorithm for large-scale nonsmooth minimizations and nonlinear equations. *Journal of Optimization Theory and Applications*, 168(1):129–152, 2016. CODEN JOTABN. ISSN 0022-3239 (print), 1573-2878 (electronic).

Yuan:2013:MHS

[YZ13] Gonglin Yuan and Maojun Zhang. A modified Hestenes–Stiefel conjugate gradient algorithm for large-scale optimization. *Numerical Functional Analysis and Optimization*, 34(8):914–937, 2013. CODEN NFAODL. ISSN 0163-0563 (print), 1532-2467 (electronic).

Ziegler:1959:BGB

[ZGRD+59] H. Ziegler, P. Grassmann, E. Roth-Desmeules, E. Stiefel, Ch. Wehrli, P. de Haller, A. Linder, R. Jost, and F. Tank. Buchbesprechungen. (German) [Book reviews]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 10(1):105–112, January 1959. CODEN ZAMPDB.

ISSN 0044-2275 (print), 1420-9039 (electronic). URL `https://link.springer.com/article/10.1007/BF01637212`.

Zhang:2009:NVH

[Zha09] Li Zhang. New versions of the Hestenes–Stiefel nonlinear conjugate gradient method based on the secant condition for optimization. *Computational & Applied Mathematics*, 28(1):111–133, 2009. ISSN 1807-0302.

Zimmermann:2017:MAA

[Zim17] Ralf Zimmermann. A matrix-algebraic algorithm for the Riemannian logarithm on the Stiefel manifold under the canonical metric. *SIAM Journal on Matrix Analysis and Applications*, 38(2): 322–342, ???? 2017. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Zhang:2016:EON

[ZTS+16] Wei Emma Zhang, Mingkui Tan, Quan Z. Sheng, Lina Yao, and Qingfeng Shi. Efficient orthogonal non-negative matrix factorization over Stiefel manifold. In *Proceedings of the 25th ACM International on Conference on Information and Knowledge Management*. ACM Press, New York, NY 10036, USA, October 2016.

Zuse:1979:REC

[Zus79] Konrad Zuse. Die Rolle der ETH bei der Computerentwicklung. Dem Andenken an Eduard Stiefel. (German) [The role of ETH in computer development: In memory of Eduard Stiefel]. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 30(2):399–403, March 1979. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic).

Zhang:2012:NCP

[ZZ12] Li Zhang and Youhua Zhou. A note on the convergence properties of the original three-term Hestenes–Stiefel method. *Advanced Modeling and Optimization*, 14(1):159–163, 2012. ISSN 1841-4311.

Zhou:2013:SCM

[ZZ13] Weijun Zhou and Youhua Zhou. On the strong convergence of a modified Hestenes–Stiefel method for nonconvex optimization. *Journal of Industrial and Management Optimization*, 9(4):893–899, 2013. ISSN 1547-5816 (print), 1553-166X (electronic).