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
FAX: +1 801 581 4148

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

05 June 2024
Version 1.16

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]. **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]. **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]. **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** [Lee95, Neu05, CZ15, MKS98, TVC08, Zus79]. **Computerentwicklung** [Zus79]. **Computing** [Bru17, ASSW61j, 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** [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]. **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]. **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** [Neu05]. **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, 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]. **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]. **Hochschulen** [ASSW61j]. **homotopy** [Str72]. **Hong** [IEE03]. **Hosszu** [Sti55a]. **Householder** [Sch69, Sch70]. **hybridization** [BKG15, BKG18, NK21].

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** [ASSW61j]. **Infinite** [Dun74]. **Information** [Sti59a, ASSW61d]. **Informationstechnik** [ASSW61d]. **Informationsverarbeitung** [Sti59a]. **initialization** [KMSR16]. **Institut** [ASSW61h, Tod52]. **Institute** [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]. **Kolmogoroff** [FKT14]. **Konferenz** [ASSW61j, Sti59a]. **Kong** [IEE03]. **Kongreß** [ASSW61c]. **Kongresse** [Sti51]. **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].

M [Sti55a, Sti72a, Str61]. **Machine** [KT12, Sti50, Sti53b]. **Machines** [Pri10, 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** [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** [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]. **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]. **path** [IJW93a, IJW93b]. **Patient** [PBC19]. **PCA** [THY+19]. **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** [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]. **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** [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**

[Tod52, Neu05, Sti53b]. **Switzerland** [Sti53b, ASSW61h, Bru17]. **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]. **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]. **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** [Usc08]. **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].

York [Ham64, Her64a, R.65]. **Yuan** [BKG15, DC05, NK21].

Z4 [Sti53b, Sti55d]. **Zum** [Sti37]. **zur** [Sti53c, Sti55a, Sti55b, Sti55c, Sti57a, Kru66, Sti53c]. **Zurich** [Sti53b, Sti53b]. **Zuse** [Sti55d, 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. (German) [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`.

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`.

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 Verlag, Stuttgart, 1968, 243 pp., 22 cm. Price DM 34-. *Mathematics of Computation*, 24(109):229–230, January 1970. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `https://www.jstor.org/stable/2004900`.

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 Mechanics*, 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 unconstrained 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`.

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).

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.

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 angewandten 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 de-

termination 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 Be-

handlung 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, August 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 opti-

mization. *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).