A Bibliography of Publications of Gene H. Golub

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Abstract

This bibliography records publications of Gene
H. Golub.

Title word cross-reference

\[ AX + XB = C \text{ [101, 100, 90], } Ax = \lambda Bx \]
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References


REFERENCES


REFERENCES

Golub:1967:GBA


Bartels:1968:ACS


Bartels:1968:NAS


Businger:1969:AAS


Golub:1969:CGQ


Golub:1969:MDSa

REFERENCES


[36] B. L. Buzbee, F. W. Dorr, J. A. George, and G. H. Golub. The direct solution of
REFERENCES


REFERENCES


Golub:1974:BMM


Golub:1974:CBS


Golub:1974:CSD


Golub:1974:MCE


Golub:1974:ICP


Miller:1974:TNA


Concus:1975:GCG


Golub:1975:ICE


Golub:1975:SMC

REFERENCES


[75] Åke Björck and Gene H. Golub. Eigenproblems for matrices associated with
DEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). URL http://

[76] D. Boley and Gene H. Golub. Inverse
eigenvalue problems for band matrices.
Technical Report STAN-CS-77-623, De-
partment of Computer Science, Stanford
University, Stanford, CA, ????. 1977. 9
pp.

[77] D. Boley and G. H. Golub. Inverse
eigenvalue problems for band matrices.
In Watson [449], page ?? ISBN 0-
387-08538-6. LCCN QA1 .L471 v.630.
DM24.80.

Vectorizations for the CRAY-1 of some
methods for solving elliptic difference
equations. In Kuck et al. [445], pages
255–271. ISBN 0-12-427750-0. LCCN
QA76.5 S95 1977.

[79] Carl de Boor and Gene H. Golub. The
numerically stable reconstruction of a
Jacobi matrix from spectral data. Tech-
nical Report STAN-CS-77-602, Depart-
ment of Computer Science, Stanford
University, Stanford, CA, ????. 1977. 18
pp.

[80] G. H. Golub and R. Underwood. The
block Lanczos method for computing
eigenvalues. In Rice [446], pages
364–377 (or 361–377??). ISBN 0-12-
587260-7. LCCN QA3 .U45 no. 39;
sciencedirect.com/book/9780125872607/
mathematical-software. Reprinted in
[495].

[81] Gene H. Golub, Michael Heath, and
Grace Wahba. Generalized cross-
validation as a method for choosing a
good ridge parameter. Technical Re-
port STAN-CS-77-622, Department of
Computer Science, Stanford University,
Stanford, CA, ????. 1977. 24 pp. Also is-
sued as Dept. of Statistics Technical Re-
port no. 491, University of Wisconsin,
Madison, WI.

[82] Gene H. Golub and Franklin T. Luk.
Singular value decomposition: applica-
tions and computations. In ARMY
MATH’76 [444], pages 577–605. ISBN
????. LCCN ????

[83] Gene H. Golub and Franklin T. Luk.
Singular value decomposition: applica-
tions and computations. In ARMY
MATH’76 [444], pages 577–605. ISBN
????. LCCN ????
REFERENCES

Boley:1978:MIEa

Boley:1978:MIEb

Concus:1978:NSN

Cottle:1978:SLS

deBoor:1978:NSR

Golub:1978:SHM

Golub:1978:UPD

VanLoan:1978:SUP

Bauer:1979:ES

Dahlquist:1979:BEL


Golub:1979:UPD


Golub:1980:ATLa


Golub:1980:ATLb


Golub:1980:LSG


Golub:1980:SLS


Golub:1980:BLM


Golub:1980:BDV


Björck:1981:EMA


Golub:1981:BD


Golub:1981:BLM

REFERENCES

ISSN 0098-3500 (print), 1557-7295 (electronic). Cited in Åke Björck’s bibliography on least squares, which is available by anonymous ftp from math.liu.se in pub/references.


REFERENCES


REFERENCES


Golub:1988:CIC

[151] Gene H. Golub and Michael L. Over- 
ton. The convergence of inexact Cheby-
shev and Richardson iterative meth-
ods for solving linear systems. Nu-
merische Mathematik, 53(5):571–593, 
August 1988. CODEN NUMMA7. ISSN 
0029-599X (print), 0945-3245 (elec-
tronic).

Golub:1988:GEY

[152] G. H. Golub, A. Hoffman, and G. W. 
Stewart. A generalization of the Eckart– 
Young–Mirsky approximation theorem. Li-
ear Algebra and its Applications, 88/89:317–328, 1988. CODEN LAA-
PAW. ISSN 0024-3795 (print), 1873-
1856 (electronic).

Golub:1988:OPH

Obituary to Peter Henrici (13. September 
CODEN NUMMA7. ISSN 0029-599X 
(print), 0945-3245 (electronic).

Golub:1988:PBS

[154] Gene H. Golub, Robert J. Plemmens, 
and Ahmed Sameh. Parallel block 
schemes for large-scale least-squares 
computations. In Wilkinson [466], 

DeMoor:1989:GSV

Generalized singular value decomposi-
tions: a proposal for a standardized 
nomenclature. Technical Report STAN-
CS-TR-2002, Department of Computer 
Science, Stanford University, Stanford, 

Elhay:1989:UDO

[156] Bart L. R. De Moor and Gene H. Golub. 
The restricted singular value decomposi-
tion: properties and applications. Tech-
nical Report STAN-CS-TR-2001, De-
partment of Computer Science, Stanford 

Elman:1989:IMC

[157] Sylvan Elhay, Gene H. Golub, and 
Jaroslav Kautský. Updating and down-
dating of orthogonal polynomials with 
data fitting applications. Technical Re-
port STAN-CS-89-04, NA-89-04, De-
partment of Computer Science, Stanford 

Elman:1989:LIM

Iterative methods for cyclically re-
duced non-self-adjoint linear systems 
II. Technical Report STAN-CS-TR-
2238, UMIACS-TR-89-45, Department 
of Computer Science, Stanford Uni-

Gander:1989:CEP

Line iterative methods for cyclically re-
LCCN ??

Gander:1989:CEP

[160] Walter Gander, Gene H. Golub, and 
Urs von Matt. A constrained eigenvalue

**Gander:1989:DLS**


**Gander:1989:SLE**


**Golub:1989:CEP**


**Golub:1989:EEI**


**Golub:1989:MC**


**Golub:1989:MMI**


**Golub:1989:SHC**


**Comon:1990:TFE**

REFERENCES

Elman:1990:IMC

Elman:1990:IML

Elman:1990:LIMa

Elman:1990:LIMb

Ferng:1990:ALM

Gander:1990:SLE

Golub:1990:DVK

Golub:1990:IML

Golub:1990:MMI

Golub:1990:PRJ
REFERENCES


Berry:1991:ELS


DeMoor:1991:RSV


Elhay:1991:UDOa


Elhay:1991:UDOb


Elman:1991:IMC


Boley:1991:MNL


Boley:1991:NLA


Boley:1991:NLF

REFERENCES


REFERENCES

ISSN 0895-4798 (print), 1095-7162 (electronic).


REFERENCES


REFERENCES

CS-93-01, Department of Computer Science, Pennsylvania State University, ??, ???. 1993.

Talwar:1993:RNA


Calvetti:1994:ACI


Calvetti:1994:GQA


Carey:1994:LBM


Dubrulle:1994:MQI


Elman:1994:CLI


Elman:1994:IPU


Ernst:1994:DDA

[222] Oliver Ernst and Gene H. Golub. A domain decomposition approach to solving the Helmholtz equation with a radiation boundary condition. In Quarteroni et al. [484], pages 177–192. ISBN 0-8218-
Fischer:1994:RAI


Gander:1994:LCQ


Gander:1994:LSF


Golub:1994:MMQ


Golub:1994:PAC


Xu:1994:FAU


Arbenz:1995:MSI


Boley:1995:FPF


Chu:1995:ROR

REFERENCES


REFERENCES


[248] Richard Bellman. *Introduction to matrix analysis*, volume 19 of *Classics in Ap-
REFERENCES


Chandrasekaran:1997:BFP


Chandrasekaran:1997:EAL


Chandrasekaran:1997:PEP


Chandrasekaran:1997:WCP


Chu:1997:VFG


Fierro:1997:RTT


Golub:1997:CSI

https://global.oup.com/academic/product/the-state-of-the-art-in-numerical-analysis-9780198500148
Based on the proceedings of a conference on the state of the art in numerical analysis. Organized by the Institute of Mathematics and Its Applications and held at York University in April 1996.

Golub:1997:GCV

Golub:1997:MMQa

Golub:1997:MMQb

Andersson:1998:SBE
Baglama:1998:APG


Chandrasekaran:1998:PEP


Chu:1998:RMS


Giladi:1998:IOI


Golub:1998:EDN


Golub:1998:FPS


Golub:1998:IIS


Zhang:1998:EPG

REFERENCES


REFERENCES


Zhang:1999:SIM


Golub:2000:ECC


Golub:2000:III


Golub:2000:LSS


Calvetti:2000:CGK


Golub:2000:CSG

REFERENCES


Bai:2003:HSH


Benzi:2003:OHS


Elhay:2003:SML


Gander:2003:NOO


Golub:2003:SBS


Golub:2003:SNL


Kamvar:2003:EBS


Kamvar:2003:EMA

REFERENCES


Elad:2004:SME


Holz:2004:SAM


Kamvar:2004:ACR


Kamvar:2004:AMC


Kim:2004:IMV


Livne:2004:SB


Sima:2004:RTL


Yuan:2004:SCD


Alter:2005:RPC

REFERENCES


Bai:2005:BTS

Benzi:2005:NSS

Bertaccini:2005:PHM

Boutry:2005:GEP

Chu:2005:IEP

Cuyt:2005:MII

Golub:2005:AAB
REFERENCES


[345] Zhong-Zhi Bai, Gene H. Golub, and Chi-Kwong Li. Optimal parameter in

**Bartels:2006:SOL**


**Botchev:2006:CNP**


**Chu:2006:GEP**


**Comon:2006:GRD**


**Golub:2006:ATA**


**Golub:2006:CME**


**Kim:2006:CMV**


**Vandebril:2006:SNS**

Bai:2007:AHS

Bai:2007:CPP

Bai:2007:SOA

Beckermann:2007:NCG

Bertaccini:2007:SAP

Gleich:2007:TRP

Golub:2007:HA

Golub:2007:HAC

Golub:2007:WOR
Lee:2007:TSA


Chang:2008:TBP

Comon:2008:STS

Dongarra:2008:NNB


Stewart:1987:RBC


Demmel:1990:BRM


Higham:1990:RGH


Kockler:1991:PIG


Higham:1992:IWP


Moler:1992:DGG


Moler:1992:DGH


Young:1993:SCD


Gautschi:2002:IBC

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Heath:2008:GGR


Higham:2008:HOW


OLeary:2008:GHG


Ruhe:2008:GHG


Hnětynková:2009:REG

Iveta Hnětynková, Martin Plešinger, and Zdeněk Strakoš. The regularizing effect of the Golub–Kahan iterative bidiagonalization and revealing the noise level in the data. BIT Numerical Mathematics, 49(4):669–696,


REFERENCES


REFERENCES


[432] James H. Wilkinson and Christian Reinsch, editors. Linear Algebra, volume II

Hu:1973:MPP


Kabe:1973:MSI


Kennedy:1973:PCS


Miller:1973:TNA


Tarter:1973:PCS


Pereyra:1974:ADS


Anonymous:1975:SI


Glowinski:1975:CMA

REFERENCES


REFERENCES


REFERENCES


Caussinus:1982:Csh


Watson:1982:Nap


Blackburn:1983:Sic


Glowinski:1983:Cma


Dongarra:1984:Ips


Golub:1984:Sna


Heiberger:1987:Css


Noye:1987:Cta

References


Glowinski:1988:FIS


Wilhelmson:1988:HSC


Kowalik:1989:S


ARO:1990:TSA


Cox:1990:RNC


Kincaid:1990:IML


Kowalik:1990:SNA

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Brown:1994:PCL


Chatterji:1994:PIC


Golub:1994:RAI


Griffiths:1994:NAP


Quarteroni:1994:DDM


Buxton:1996:CVE


Griffiths:1996:NAR

Meinguet:1996:NAN


Chan:1997:IMS


Duff:1997:SAN


Golub:1997:PWS


VanHuffel:1997:RAT


Gautschi:1999:ACO


Engquist:2001:MUB

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