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**Title word cross-reference**

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\[ XY = A \]  
\[ y'' = f(t, y) \]  
\[ y' = f(x, y) \]  
\[ y'' = f(x, y) \]  
\[ z^{-1} = 310, 1167, 1291 \]  
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Strang-type [309]. strategies [903, 1006, 1025, 1304, 1577]. strategy [1131, 1192]. stream [207].
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[8].
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REFERENCES

[171, 260, 261, 840]. Variational
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[129, 133, 189, 235, 303, 302, 306, 304, 305,
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[1068]. Wavelet [215, 399, 405, 1468].
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[218, 235, 303, 393, 463, 556, 911, 1243, 1267,
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941, 1170, 1171, 1397].

References

for the $|c|$-uniformly quasiconvex enve-


Ahmed:1985:FAP


Ahmed:2017:AFS


Ahn:2009:DFC


Ainsworth:1997:PPC


Ainsworth:2012:CEB


Ainsworth:2001:CEB


[38] Alejandro Allendes, Francisco Durán, and Richard Rankin. Error estimation for low-order adaptive finite element approximations for fluid flow


REFERENCES

academic.oup.com/imajna/article/37/4/1902/2929533. See erratum [51].


REFERENCES


REFERENCES


Anonymous:2004:R


Anonymous:2005:IV


Anonymous:2005:R


Anonymous:2006:IV


Anonymous:2006:R


Anselone:1987:DCA


Antil:2018:PEA


Antil:2018:SAW

REFERENCES


44


[91] Ioannis K. Argyros. On a new Newton-Mysovskii-type theorem with applications to inexact Newton-like meth-
Arioli:2018:FEM


Arioli:2013:DFS


Arioli:1992:SCC


Aristotelous:2015:ASO


Arnal:2008:NAM


Asaturyyan:2001:LSP


REFERENCES

Baart:1982:UA


Baart:1986:QTT


Babolian:1981:FGS


Bachmayr:2018:PPS


Badea:2004:SNM


Badea:2014:GCR


Badia:2014:EAD


Badia:2014:CTW

Santiago Badia and Juan Vicente Gutiérrez-Santacreu. Convergence towards weak solutions of the Navier–Stokes equations for a finite element approximation with numerical


REFERENCES


Barrett:1998:FEA


Barrett:1999:IEB


Barrett:2002:FEA


Barrett:2018:CFE


Barrett:2018:FEA


Barrett:1991:FEA


Barrett:1984:FEM


Beatson:2014:PCS


Behforooz:1981:ECI


Behie:1983:CFI


Belenki:2012:OAF


Belhachmi:2004:RPE


Belhachmi:2006:FEA


Belhachmi:2006:CFE

REFERENCES

oxfordjournals.org/cgi/reprint/26/4/790.

Bellavia:2015:SLC

Bellen:1990:SAR

Bellen:2002:PSN

Bellettini:1996:NSM

Beldir:2011:ECN

Belward:1985:FSA

Ben-Artzi:2018:DFO

Bendali:2014:LAR
Abderrahmane Bendali, Yassine Boubendir, and Nicolas Zeribib. Localized adap-

Benouahmane:2019:NMC


Benzi:2008:BPR


Bermejo:2010:SLG


Bermudez:2006:ASA


Bermudez:1991:SSW


Bermudez:2012:NST

REFERENCES

Bermúdez:2010:NAF


BermúdezdeCastroLopez:1982:MME


Bernardi:1990:SGS


Bernardi:1987:MMT


Bernardi:2001:EIM


Bernardi:1992:MSE


Bernardi:1987:MME


Bernardi:2013:PAF

[209] Christine Bernardi, Frédéric Hecht, Hervé Le Dret, and Adel Blouza. A posteriori analysis of a finite element discretization of a Naghdi
REFERENCES


Bernardi:2010:NFE


Bernardi:2016:SDD


Bernardi:2015:PEA


Berrone:2008:TSP


Berselli:2015:OEE


Bertoluzza:2000:WSP


**Betcke:2007:GFD**


**Bley:1990:NCC**


**Beyn:1994:NAH**


**Bi:2011:FVE**


**Bialaeki:1991:SCM**


**Bialaeki:2004:PGM**


**Bialaeki:2003:OSC**


REFERENCES


[245] Andrea Bonito and Joseph E. Pasciak. Corrigendum to the paper “Numeri-

Bonito:2017:NAF


Bonizzoni:2014:MEM


Bonnaillie-Noel:2016:ENC


Bonnans:2006:EES


Bornemann:2007:MUN


Bornemann:2013:OCH


REFERENCES

oxfordjournals.org/content/36/1/463.

Bouche:2015:CCD


Bouchut:2014:CTV


Bouchut:2017:CTV


Bouharguane:2018:SMD


Boulmezaoud:2005:MSE


Boulton:2007:NVA


Boulton:2016:CQM


Bradji:2008:DCH


Braess:1986:NSB


Braess:1983:NSO


Braess:2005:AXE


Brannigan:1981:TCB

REFERENCES


REFERENCES


REFERENCES

oup.co.uk/imanum/hdb/Volume_16/Issue_01/160093.sgm.abs.html.


REFERENCES


REFERENCES


REFERENCES

Buhmann:1988:CUQ

Buhmann:1992:DDN

Buhmann:2010:NRB

Bultheel:2010:RQF

Burke:2003:RSC

Burke:2008:SSR
REFERENCES


### Burman:2009:WEE


### Burman:2017:CDG


### Burman:2009:WEE


### Burman:2018:RFE


### Burman:2010:IPS


### Burrage:1985:SPS


### Burrage:1987:ASG


### Burrage:1988:ASR


### Burrage:1988:OPI

[331] Kevin Burrage. Order properties of implicit multivalue methods for ordi-
REFERENCES


[339] Baruch Cahlon and Darrell Schmidt. Piecewise polynomial approximate so-


Cameron:1983:SDA


Cameron:1985:API


Campos:2011:QFI


Cances:2018:TGM


Cangiani:2014:ADG


Cangiani:2017:CNV


Cano:2010:MCM

abstract/30/2/431; http://imajna.oxfordjournals.org/cgi/reprint/30/2/431.


REFERENCES


REFERENCES


[381] Jan Cermák. The stability and asymptotic properties of the Θ-methods for...
REFERENCES


Chadha:2011:RGE


Chainais-Hillairet:2011:FVS


Chainais-Hillairet:2007:ABF


Chainais-Hillairet:2003:CFV


Chalabi:1992:SUS


Challis:1982:NMC


Chamberlain:1988:FLL
REFERENCES

Chan:1991:TPT


Chan:2001:FM


Chandler-Wilde:1989:AGT


Chandler-Wilde:1993:SUS


Chapko:2000:NSH


Chappell:2011:CQG

REFERENCES

with reduced quadrature weight com-
putation. *IMA Journal of Numer-
ical Analysis*, 31(2):640–666, April
2011. CODEN IJNADH. ISSN
0272-4979 (print), 1464-3642 (elec-
oxfordjournals.org/content/31/2/
640.full.pdf+html.

Benoit Charbonneau, Yuriy Svyry-
dov, and P. F. Tupper. Weak
convergence in the Prokhorov met-
ic of methods for stochastic dif-
terential equations. *IMA Journal
of Numerical Analysis*, 30(2):579–
594, April 2010. CODEN IJNADH.
ISSN 0272-4979 (print), 1464-3642
oxfordjournals.org/cgi/content/
abstract/30/2/579; http://imajna.
oxfordjournals.org/cgi/reprint/
30/2/579.

Philippe Chartier and Ander Mu-
rua. Preserving first integrals and
volume forms of additively split sys-
tems. *IMA Journal of Numeri-
cal Analysis*, 27(2):381–405, April
2007. CODEN IJNADH. ISSN
0272-4979 (print), 1464-3642 (elec-
oxfordjournals.org/cgi/content/
abstract/27/2/381; http://imajna.
oxfordjournals.org/cgi/reprint/
27/2/381.

Ki Wai Chau and Cornelis W. Oost-
erlee. On the wavelet-based SWIFT
method for backward stochastic dif-
terential equations. *IMA Journal

[397] Charbonneau:2010:WCP


[399] Chau:2018:WBS

of Numerical Analysis*, 38(2):1051–
1083, April 18, 2018. CODEN IJ-
NADH. ISSN 0272-4979 (print),
academic.oup.com/imajna/article/
38/2/1051/3947812.

Joseph Páez Chávez. Discretiz-
ing dynamical systems with Hopf-
Hopf bifurcations. *IMA Journal
of Numerical Analysis*, 32(1):185–201,
January 2012. CODEN IJNADH.
ISSN 0272-4979 (print), 1464-3642
oxfordjournals.org/content/32/1/
185.full.pdf+html.

M. M. Chawla. A new fourth-order
finite-difference method for computing
eigenvalues of fourth-order two-point
boundary value problems. *IMA Journal
of Numerical Analysis*, 3(3):291–
293, 1983. CODEN IJNADH. ISSN
0272-4979 (print), 1464-3642 (elec-
tronic).

M. M. Chawla and C. P. Katti. A finite-
difference method for a class of singu-
lar two-point boundary value problems.
*IMA Journal of Numerical Analysis*, 4
(4):457–466, October 1984. CODEN
IJNADH. ISSN 0272-4979 (print),
1464-3642 (electronic).

M. M. Chawla and P. S. Rao. High-
accuracy $P$-stable methods for $y'' = f(t, y)$. *IMA Journal of Numerical
IJNADH. ISSN 0272-4979 (print),
1464-3642 (electronic). See corrigendum [404].

Chawla:1986:CHA


Chegini:2012:ATP


Chen:2012:MCA


Chen:1989:EEO


Chen:2017:MSC


Chen:2017:LFE


Chen:2016:RPE


REFERENCES


Cheung:2001:FEA


Cheung:2015:SAC


Chiang:1994:POS


Chien:1997:DGM


Chin:2011:MPO


Choquet:2011:AFV


Chouly:2018:RBP


REFERENCES


REFERENCES


Coleman:1996:SEF


Colombini:2015:NAV


Congreve:2013:DGF


Conn:2008:GSS


Coope:1993:CIN


Cooper:1984:GAS


Cooper:1986:ESA


Cooper:1987:SRK

Cooper:1992:WNS

Cooper:1983:ISI

Coquel:2012:CTS

Coquereaux:1990:IMC

Coughlan:2007:TLM

Cox:1981:LSS

Cox:1982:DVI

Cox:1991:ACB

Cox:1985:LSS
REFERENCES


REFERENCES

Cuminato:1992:UCC


Curtis:1981:PST


Curtis:1983:JMP


Curtis:1986:A


Curtis:2016:HNC


Curtis:2018:RLC


Curtis:2008:FPF


Custodio:2008:USG


Cuyt:1988:EBC


REFERENCES

CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic).

Dauner:1989:ATA

Davies:2004:SP

Davydov:2019:OSS

Davydov:2008:ISD

DeAsmundis:2013:SPS

DeBonis:2009:NMS
M. C. De Bonis and G. Mastroianni. Nyström method for systems of integral...


REFERENCES


deTeran:2016:BSP


Deckelnick:2010:HNB


Deckelnick:1998:FEE


Deckelnick:2000:CDF


Deckers:2015:CDT


Deckers:2009:RAO


Dedieu:2013:ASS


[548] Sohan Dharmaraja, Yinghui Wang, and Gilbert Strang. Optimal sta-


Vít Dolejsí, Miloslav Feistauer, Václav Kucera, and Veronika Sobotíková.

Dominguez:2011:SEE


Dond:2017:CAL


Dong:2017:UHD


Donnelly:1989:SBC


Dopico:2012:ASS


Dormand:1984:GEE


Dormand:1987:FRK


Dormand:1987:HOE


Dormand:1991:CHO


Dormand:1985:GEE


Doss:2005:QMU


URL http://imanum.oupjournals.org/cgi/content/abstract/25/1/139; http://imanum.oupjournals.org/cgi/reprint/25/1/139.

Droucette:1994:NMN


Driscoll:2016:RSC


Drmać:1999:PCS


Droniou:2003:CFV

REFERENCES


Droniou:2016:GSS


Droniou:2019:MFE


Droniou:2018:ILE


Du:2009:AMF


DuCroz:1992:SMM


Duan:2015:SSF


Dubeau:1985:PQS

REFERENCES

Duff:1983:ENW


Duff:1983:NWI


Duff:1993:ELF


Duff:2005:CE


Dujardin:2016:ABS


Dumas:2011:CCW


Duncan:1991:SES

Duncan:2007:OGD


Dunne:2009:FMN


Dunst:2015:CRT


Dunst:2015:OCE


Duran:2000:NIR


Duran:2012:SFE


Durand:2011:FDF

REFERENCES


Egloff:2015:RWR


Eibner:2006:LEA


Eigel:2010:MFP


Eigel:2018:PEC


ElAlaoui:2007:PPA


El-Gebeily:1998:FDM


[626] C. M. Elliott and S. A. Smitheman. Numerical analysis of the

**Elliott:1981:FIA**


**Elliott:1983:EFF**


**Elliott:2013:FCA**


**Elliott:2011:NCA**


[640] Alexandre Ern, Annette F. Stephansen, and Paolo Zunino. A discontinuous Galerkin method with weighted av-

**Ervedoza:2016:NME**


**Ervin:2006:ABE**


**Escande:2016:FCL**


**Esser:2015:ARF**


**Eymard:1998:EEA**


**Eymard:2006:CCF**


[661] Erwan Faou, Alexander Ostermann, and Katharina Schratz. Analy-


REFERENCES


REFERENCES


REFERENCES


REFERENCES


REFERENCES

ISSN 0272-4979 (print), 1464-3642 (electronic). URL http://imajna.oxfordjournals.org/content/36/2/543.


REFERENCES


Gaucyler:2011:CSS


Gaucyler:2017:NLT


Gavrilyuk:2007:ECP


Gensun:2005:CDR


Georgoulis:2019:PEB


Georgoulis:2009:DGM

REFERENCES

Georgoulis:2011:PEI


Georgoulis:2013:PEB


Georgoulis:2006:NDH


Georgoulis:2005:OEE


Gerisch:2010:AEE


Gerrard:1984:APC


Gervais:2002:NSC

REFERENCES


REFERENCES

Gill:2017:SSM


Giraud:2002:WMG


Giraud:1999:SCP


Girault:2004:DDM


Girault:1996:FEE


Gittelson:2012:RGF


Gladwell:1990:EMS


REFERENCES


REFERENCES

CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic).


REFERENCES


REFERENCES

Grote:2008:IPD


Grothaus:2016:NPD


Grune:2001:PAO


Guan:2012:ACS


Gudi:2011:IPM


Guermond:2001:SSG


Guermond:2009:LCF

REFERENCES


[821] Ben Yu Guo and V. S. Manoranjan. A spectral method for solving the RLW


REFERENCES


REFERENCES


REFERENCES


Hall:1981:SAT


Hammarling:1982:NSS


Han:1992:VPF


Handscomb:1984:SRI


Hansbo:2017:SFE


Hansen:2017:ADD


Hansen:2010:DSQ


Hansen:2002:SCM


REFERENCES


[888] Adrian Hirn, Martin Lanzendörfer, and Jan Stebel. Finite element approximation of flow of fluids with

[Hochmuth:2001:LBE]


[Hocking:2012:CFM]


[Hoffmann:1996:PSV]


[Holden:2009:CFD]


[Holden:2015:CFD]


[Hopkins:1989:NEC]


[Hoppe:1993:GCM]

REFERENCES


REFERENCES

Hovhannisyan:2010:SFA


Hsiao:2017:BCB


Hu:1998:GMT


Hu:1999:SRK


Hu:2004:PPS


Hu:1993:ADR


Huang:1981:CAO


[924] Daan Huybrechs, Arieh Iserles, and Syvert P. Nørsett. From high oscillation to rapid approximation V:


[940] A. Iserles and M. J. D. Powell. On the $A$-acceptability of rational approx-


REFERENCES

161


REFERENCES


REFERENCES


[979] Michael J. Johnson. Overcoming the boundary effects in surface


REFERENCES


REFERENCES


REFERENCES


Karlsen:2012:CMM


Karlsen:1999:USS


Kawohl:1998:CFE


Kay:2001:RLE


Kelly:2018:ATS


Kessler:2002:PEE


Kloeden:2009:ASV


Kloeden:2003:UAN


Knobloch:2011:SFE


Koch:2011:VST


Kohler:1993:EEG


Kokkinos:1990:OMA


Koley:2012:HOF


1031 Balázs Kovács and Christian Andreas Power Guerra. Higher order time discretizations with ALE finite elements for parabolic problems on


[1038] Christian Kreuzer and Mira Scheden-sack. Instance optimal Crouzeix–Raviart adaptive finite element methods for the Poisson and Stokes prob-


REFERENCES


REFERENCES


REFERENCES

177


Lederer:2018:PRS


Ledoux:2010:ENS


Lee:2012:STP


Lehmann:1986:CEB


Lehrenfeld:2018:AHO


Leimkuhler:2016:CAE


Leok:2012:PCV


179

REFERENCES


REFERENCES


Linke:2017:OVE


Linss:2000:AGF


Linss:2000:NSI


Linss:2004:EEF


Linss:2009:LAM


Lipman:2010:APS

Liu:2009:TSS


Liu:2006:MSR


Liu:2013:MPS


Liu:1990:SMN


Liu:2018:SES


Loach:1991:BLS


Lombardi:2011:IEE


Lopez:1983:SAB

[1111] Luciano Lopez. Stability and asymptotic behaviour for the numerical solution of a reaction-diffusion model

Lopez-Fernandez:2013:GCQ


Lopez-Gomez:1992:SSM


LopezMarcos:1994:NAP


Lorcher:2007:LWT


Lord:2004:NSS


Lord:2013:SEI

REFERENCES


[1127] Lars Ludwig and Hans-Görg Roos. Finite element superconvergence on

Lui:2009:LNO


Lund:1989:SSG


Lund:1984:SCM


Ma:2006:PEE


Lyche:1988:DRS


Lyness:1989:ILR


Ma:2018:EEC


Ma:1987:FPM


Ma:2006:PEE


REFERENCES


REFERENCES


Manouzi:2004:MFE


Marazzina:2008:SPD


Marin:2014:CTR


Marinov:1986:TEI


Markham:1990:CGT


Marletta:2010:NDM


Marquez:2015:SCF


Marsden:1984:CSI

Martins:1995:EBM


Maset:2013:SPE


Mason:1981:NMI


Mason:1983:NBA


Mason:1984:NBA


Mastroianni:1994:NIB


Mastroianni:1997:NIB


Mastroianni:2009:SNM


REFERENCES


Meddahi:1999:MDM


Meddahi:2015:FEA


Meek:1982:TST


Meerbergen:2016:IRR


Meerbergen:2017:CPA


Meerbergen:2018:EC


Meerbergen:1996:MTC


Gradimir V. Milovanovic, Miodrag M. Spalevic, and Miroslav S. Pranic. Error estimates for Gauss–Turán quadratures

**Milstein:2001:NSD**


**Milstein:2002:PAS**


**Milstein:2007:DFB**


**Milstein:2003:QSM**


**Mirzaei:2012:GML**


**Mitchell:2016:HEC**

REFERENCES


REFERENCES

199


Nicaise:2005:CAF


Nicaise:2008:PEE


Nie:1985:LMF


Nigam:2012:HOC


Nochetto:2009:SDW


Norton:2012:FEA

REFERENCES


[1269] P. Oliver. A family of linear multistep methods for the solution of stiff
204

References


[1278] Christoph Ortner and Hao Wang. A posteriori error control for a quasi-


[1280] Ortner:2011:NFE

REFERENCES


Osada:1992:MOS


Osborne:1992:EMC


Osborne:2010:ABL


Osborne:2000:NAV


Osborne:1999:NAS


Ostermann:1990:HEE


Ostermann:2000:NSD


[1294] Amiya K. Pani. A qualocation method for parabolic partial dif-
REFERENCES


REFERENCES


Pechstein:2013:WPI


Pejcev:2012:EBG


Pena:1996:PSL


Phillips:2010:SRQ


Phillips:1985:EMC


Phillips:1988:LCG


Phillips:1989:FSS


Phillips:1986:PSM


Poghosyan:2011:ACP


Pooley:2003:NCP


Porter:1993:RGM


Potra:1994:LOM


Potts:2001:NLA


Potzsche:2010:CIM


Poulikkas:1998:MFS

References


[1332] Stefano Pozza, Miroslav S. Pranič, and Zdenek Strakos. Gauss quadra-


REFERENCES

Pruess:1993:SPC


Pryce:1985:MEA


Pryce:1986:ECP


Pryce:1989:CIR


Pytlak:1994:CCG


Qi:2011:ALD


Qiu:2016:SHM


Quell:2000:NSE


Radu:2018:RMC

Raina:1983:COQ


Rasc:2009:RIF


Rathsfeld:1996:EEE


Raydan:1993:BBC


Rebollo:2018:TDM


Reddy:2015:RVR


Reginska:1986:SEA


Reifenberg:2000:NSB

215

REFERENCES


Reisinger:2013:ALD


Reisinger:2014:INT


Ren:2016:APS


Fang:2011:SAB


Repin:2011:GRE


Reusken:2015:ATF


Riess:1982:MPE

REFERENCES


Rovas:2006:RBO


Rump:2003:OSN


Rumpf:2015:VTD


Russo:2011:HFE


Sablonniere:1987:EBH


Saedpanah:2015:CGF


Saito:2007:CUF

Salane:1981:SMN


Salane:1981:SMN

Salaun:2015:LOF


Salaun:2015:LOF

Sander:2016:GFE


Sander:2016:GFE

Sandstede:1997:CEN


Sandstede:1997:CEN

Sanz-Serna:1981:LIV


Sanz-Serna:1981:LIV

Sanz-Serna:2009:MFE

Sanz-Serna:1991:NCR

Sanz-Serna:1992:NUT

Sanz-Serna:1986:CNS

Saranen:1992:QML

Sardella:2000:CFE

Saunders:1984:VIS

Sauter:2010:REA

Sauter:2014:RBI
REFERENCES


Schropp:2000:OSM


Schropp:2008:PRK


Schutz:2014:ACA


Scott:1988:EOC


Selwood:1996:CRC


Semper:1994:LFE


Seward:1984:SHO


Shampine:1983:EEM

REFERENCES


[1426] Wen Shen. Error bounds of finite difference schemes for multi-

**Shen:2006:TAS**


**Sheng:1989:SLP**


**Sheng:1994:GEE**


**Shih:2000:IMS**


**Shingel:2009:ISO**


**Sidi:2012:UFE**


**Sidi:1982:RAT**


**Siebert:2011:CPA**

[1434] Kunibert G. Siebert. A conver-


REFERENCES


REFERENCES


[1466] Olaf Steinbach, Barbara Wohlmuth, and Linus Wunderlich. Trace and


Stewart:1997:PCF


Stewart:1997:TMG


Stoll:2014:OSS


Strauss:2011:QPM
230 REFERENCES


[1481] Guang Fu Sun and Martin Stynes. Finite-element methods for singu-

Sun:1996:OBP


Sun:2008:IQR


Sun:2001:NAE


Surla:1990:SUC


Szyld:2014:SPI


Tadmor:2005:AFP


Tan:1987:CDE


[1496] Herman J. J. te Riele. Collocation methods for weakly singular second-kind Volterra integral equations with
REFERENCES


REFERENCES


REFERENCES


Vandereycken:2013:RGC


Vannieuwenhoven:2015:RA


Varah:1993:EPV


Vasconcelos:1998:PIM


Verdi:1985:NAH

Verfurth:1984:CCG


Vigo-Aguiar:2007:FSR


Viscor:2013:RFD


Viswanath:2001:GEN


Voller:1985:IFD


Vulanovic:2001:PMS


Walz:1989:EBS


Wang:2011:DGM

REFERENCES


Wang:2017:FAC


Wang:2011:AEF


Wang:1995:ELL


Wang:2011:KTN


Wang:2011:UEF


Wang:1998:CEB

REFERENCES


[1564] Zhong-Qing Wang and Xin-Min Xiang. Generalized Laguerre approximations and spectral method for the


REFERENCES

Wu:2014:PAE


Wu:2009:EEA


Wu:2005:SRS


Wu:2015:CAS


Wu:2012:CAO


Wu:1994:SSH


Wu:2012:CAV


Xie:2014:TMM


Xie:2005:ISE


Xu:2011:UBS


Xu:2004:TLA


Xu:2016:ECR


Xu:2011:CBA


Yalamov:1999:SPA

[1610] Plamen Y. Yalamov and Marcin Paprzycki. Stability and performance
REFERENCES


[1617] Min Yang, Jiangguo Liu, and Qingsong Zou. Unified analysis of higher-order finite volume methods

Yoshikawa:2017:EES


Ypma:1983:ERE


Yuan:1984:EOL


Yuan:1984:LOC


Zakerzadeh:2016:HOA


Zanna:2015:EVP


Zhang:2004:SAR


Zhang:2004:SAR

REFERENCES


Zhang:2012:CAM


Zhang:2006:DMP


Zhang:1996:CVM


Zhang:1987:LCU


Zhang:1988:QNA


Zhang:2001:SDR


Zhao:1993:UTO


Zheng:2015:CAM

[1633] Hui Zheng and Jinhiao Wu. Convergence analysis on multigrid meth-


