A Complete Bibliography of Publications in *Numerische Mathematik* (2010–2019)

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/

30 November 2023
Version 1.65

Title word cross-reference

References

Attouch:2016:SCP

[ABAC16] Hédy Attouch, Luis M. Briceño-Arias, and Patrick L. Combettes. A strongly convergent primal-dual method for nonoverlapping domain decomposition. *Numerische Mathematik*, 133(3):443–470, July 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0751-4; http://link.springer.com/article/10.1007/s00211-015-0751-4.

Arnold:2015:FED

[ABB15] Douglas N. Arnold, Daniele Boffi, and Francesca Bonizzoni. Finite element differential forms on curvilinear cubic meshes and their approximation properties. *Numerische Mathematik*, 129

(1):1–20, January 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-014-0631-3`.

Adcock:2019:CUE

[ABB19] Ben Adcock, Anyi Bao, and Simone Brugiapaglia. Correcting for unknown errors in sparse high-dimensional function approximation. *Numerische Mathematik*, 142(3):667–711, July 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-019-01051-9`.

Arnold:2015:EAG

[ABC15] Martin Arnold, Olivier Brüls, and Alberto Cardona. Error analysis of generalized-α Lie group time integration methods for constrained mechanical systems. *Numerische Mathematik*, 129(1): 149–179, January 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-014-0633-1`.

Anand:2010:AMS

[ABER10] Akash Anand, Yassine Boubendir, Fatih Ecevit, and Fernando Reitich. Analysis of multiple scattering iterations for high-frequency scattering problems. II: The three-dimensional scalar case. *Numerische Mathematik*, 114(3):373–427, January 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=114&issue=3&spage=373`.

Angelini:2013:FVM

[ABH13] Ophélie Angelini, Konstantin Brenner, and Danielle Hilhorst. A finite volume method on general meshes for a degenerate parabolic convection-reaction-diffusion equation. *Numerische Mathematik*, 123(2):219–257, February 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-012-0485-5`.

Antoine:2013:ABC

[ABK13] Xavier Antoine, Christophe Besse, and Pauline Klein. Absorbing boundary conditions for the two-dimensional Schrödinger equation with an exterior potential. *Numerische Mathematik*, 125(2): 191–223, October 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0542-8.

Allonsius:2018:SAD

[ABM18] Damien Allonsius, Franck Boyer, and Morgan Morancey. Spectral analysis of discrete elliptic operators and applications in control theory. *Numerische Mathematik*, 140(4):857–911, December 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0983-1.

Alazah:2014:CFI

[ACWL14] Mohammad Alazah, Simon N. Chandler-Wilde, and Scott La Porte. Computing Fresnel integrals via modified trapezium rules. *Numerische Mathematik*, 128(4):635–661, December 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0627-z.

Aregba-Driollet:2016:TAH

[ADBN16] Denise Aregba-Driollet, Maya Briani, and Roberto Natalini. Time asymptotic high order schemes for dissipative BGK hyperbolic systems. *Numerische Mathematik*, 132(2):399–431, February 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0720-y.

Adcock:2010:MMF

[Adc10] Ben Adcock. Multivariate modified Fourier series and application to boundary value problems. *Numerische Mathematik*, 115(4):511–552, June 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=4&spage=511.

Amstutz:2018:CRO

[ADF18] Samuel Amstutz, Charles Dapogny, and Àlex Ferrer. A consistent relaxation of optimal design problems for coupling shape and topological derivatives. *Numerische Mathematik*, 140(1):35–94, September 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0964-4.

Antonopoulos:2019:EEG

[ADM19] D. C. Antonopoulos, V. A. Dougalis, and D. E. Mitsotakis. Error estimates for Galerkin finite element methods for the Camassa–Holm equation. *Numerische Mathematik*, 142(4):833–862, August 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01045-7.

Arcangeli:2012:ESI

[AdST12] Rémi Arcangéli, María Cruz López de Silanes, and Juan José Torrens. Extension of sampling inequalities to Sobolev seminorms of fractional order and derivative data. *Numerische Mathematik*, 121(3):587–608, July 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=3&spage=587.

Astorino:2010:CAP

[AG10] M. Astorino and C. Grandmont. Convergence analysis of a projection semi-implicit coupling scheme for fluid-structure interaction problems. *Numerische Mathematik*, 116(4):721–767, October 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=4&spage=721.

Ammari:2014:GPT

[AGK+14] Habib Ammari, Josselin Garnier, Hyeonbae Kang, Mikyoung Lim, and Sanghyeon Yu. Generalized polarization tensors for shape description. *Numerische Mathematik*, 126(2):199–224, February 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0561-5.

Andreianov:2010:FVS

[AGS10] Boris Andreianov, Paola Goatin, and Nicolas Seguin. Finite volume schemes for locally constrained conservation laws. *Numerische Mathematik*, 115(4):609–645, June 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=4&spage=609.

Abdulle:2014:DGF

[AH14] A. Abdulle and M. E. Huber. Discontinuous Galerkin finite element heterogeneous multiscale method for advection-diffusion problems with multiple scales. *Numerische Mathematik*, 126 (4):589–633, April 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0578-9`.

Abdulle:2017:NHM

[AH17] A. Abdulle and M. E. Huber. Numerical homogenization method for parabolic advection–diffusion multiscale problems with large compressible flows. *Numerische Mathematik*, 136(3):603–649, July 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Amat:2014:FHO

[AHR14] S. Amat, M. A. Hernández, and N. Romero. On a family of high-order iterative methods under gamma conditions with applications in denoising. *Numerische Mathematik*, 127(2):201–221, June 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0589-6`.

Aishima:2015:GCR

[Ais15] Kensuke Aishima. Global convergence of the restarted Lanczos and Jacobi–Davidson methods for symmetric eigenvalue problems. *Numerische Mathematik*, 131(3):405–423, November 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-015-0699-4`.

Alouges:2014:CPF

[AKST14] François Alouges, Evaggelos Kritsikis, Jutta Steiner, and Jean-Christophe Toussaint. A convergent and precise finite element scheme for Landau–Lifschitz–Gilbert equation. *Numerische Mathematik*, 128(3):407–430, November 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-014-0615-3`.

Ambartsumyan:2018:LMM

[AKYZ18] Ilona Ambartsumyan, Eldar Khattatov, Ivan Yotov, and Paolo Zunino. A Lagrange multiplier method for a Stokes–Biot fluidporoelastic structure interaction model. *Numerische Mathematik*, 140(2):513–553, October 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-018-0967-1`.

Akrivis:2015:FIL

[AL15] Georgios Akrivis and Christian Lubich. Fully implicit, linearly implicit and implicit-explicit backward difference formulae for quasi-linear parabolic equations. *Numerische Mathematik*, 131(4):713–735, December 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-015-0702-0`.

Antoine:2017:ASW

[AL17] X. Antoine and E. Lorin. An analysis of Schwarz waveform relaxation domain decomposition methods for the imaginary-time linear Schrödinger and Gross–Pitaevskii equations. *Numerische Mathematik*, 137(4):923–958, December 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-017-0897-3`.

Akrivis:2011:GRK

[AMN11] Georgios Akrivis, Charalambos Makridakis, and Ricardo H. Nochetto. Galerkin and Runge–Kutta methods: unified formulation, a posteriori error estimates and nodal superconvergence. *Numerische Mathematik*, 118(3):429–456, July 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=3&spage=429`.

Anaya:2016:PPE

[AMORB16] Verónica Anaya, David Mora, Ricardo Oyarzúa, and Ricardo Ruiz-Baier. A priori and a posteriori error analysis of a mixed scheme for the Brinkman problem. *Numerische Mathematik*, 133(4):781–817, August 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s00211-015-0758-x`; `http://link.springer.com/article/10.1007/s00211-015-0758-x`.

Arnold:2018:SSE

[AN18] Anton Arnold and Claudia Negulescu. Stationary Schrödinger equation in the semi-classical limit: numerical coupling of oscillatory and evanescent regions. *Numerische Mathematik*, 138(2):501–536, February 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0913-7; https://link.springer.com/content/pdf/10.1007/s00211-017-0913-7.pdf.

Aceto:2019:RAF

[AN19] Lidia Aceto and Paolo Novati. Rational approximations to fractional powers of self-adjoint positive operators. *Numerische Mathematik*, 143(1):1–16, September 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01048-4.

Allendes:2017:AFE

[AORS17] Alejandro Allendes, Enrique Otárola, Richard Rankin, and Abner J. Salgado. Adaptive finite element methods for an optimal control problem involving Dirac measures. *Numerische Mathematik*, 137(1):159–197, September 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Antonopoulou:2010:DGM

[AP10] D. C. Antonopoulou and M. Plexousakis. Discontinuous Galerkin methods for the linear Schrödinger equation in non-cylindrical domains. *Numerische Mathematik*, 115(4): 585–608, June 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=4&spage=585.

Antonietti:2011:FEA

[AP11] Paola F. Antonietti and Aldo Pratelli. Finite element approximation of the Sobolev constant. *Numerische Mathematik*, 117(1):37–64, January 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=1&spage=37.

Augustin:2012:SGT

[AR12] F. Augustin and P. Rentrop. Stochastic Galerkin techniques for random ordinary differential equations. *Numerische Mathematik*, 122(3):399–419, November 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=3&spage=399`.

Arens:2016:CMW

[AR16] Tilo Arens and Thomas Rösch. A collocation method for weakly singular integral equations with super-algebraic convergence rate. *Numerische Mathematik*, 134(3):441–472, November 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s00211-015-0783-9; http://link.springer.com/article/10.1007/s00211-015-0783-9`.

Alqahtani:2019:GBA

[AR19] Hessah Alqahtani and Lothar Reichel. Generalized block anti-Gauss quadrature rules. *Numerische Mathematik*, 143(3):605–648, November 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-019-01069-z`.

Arbogast:2019:CCM

[AT19] Todd Arbogast and Zhen Tao. Construction of $H(\mathrm{div})$-conforming mixed finite elements on cuboidal hexahedra. *Numerische Mathematik*, 142(1):1–32, May 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-018-0998-7`.

Absil:2010:TSG

[AV10] P.-A. Absil and P. Van Dooren. Two-sided Grassmann–Rayleigh quotient iteration. *Numerische Mathematik*, 114(4):549–571, February 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=114&issue=4&spage=549`.

Ainsworth:2011:FCR

[AV11] Mark Ainsworth and Tomás Vejchodský. Fully computable robust a posteriori error bounds for singularly perturbed reaction-diffusion problems. *Numerische Mathematik*, 119(2): 219–243, October 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=2&spage=219.

Abdulle:2012:PEE

[AV12] Assyr Abdulle and Gilles Vilmart. A priori error estimates for finite element methods with numerical quadrature for non-monotone nonlinear elliptic problems. *Numerische Mathematik*, 121(3):397–431, July 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=3&spage=397.

Allaire:2018:ODC

[AY18] G. Allaire and T. Yamada. Optimization of dispersive coefficients in the homogenization of the wave equation in periodic structures. *Numerische Mathematik*, 140(2):265–326, October 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0972-4.

Ben-Artzi:2019:SFB

[BAK19] Matania Ben-Artzi and Guy Katriel. Spline functions, the biharmonic operator and approximate eigenvalues. *Numerische Mathematik*, 141(4):839–879, April 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-01018-2.

Ballani:2012:FES

[Bal12] Jonas Ballani. Fast evaluation of singular BEM integrals based on tensor approximations. *Numerische Mathematik*, 121(3):433–460, July 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=3&spage=433.

Barlow:2013:RGK

[Bar13a] Jesse L. Barlow. Reorthogonalization for the Golub–Kahan–Lanczos bidiagonal reduction. *Numerische Mathematik*, 124(2): 237–278, June 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0518-8.

Bartels:2013:FEA

[Bar13b] Sören Bartels. Finite element approximation of large bending isometries. *Numerische Mathematik*, 124(3):415–440, July 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0519-7.

Barrios:2012:PEA

[BB12] Tomás P. Barrios and Rommel Bustinza. An a posteriori error analysis of an augmented discontinuous Galerkin formulation for Darcy flow. *Numerische Mathematik*, 120(2):231–269, February 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=2&spage=231.

Benner:2013:LRM

[BB13] Peter Benner and Tobias Breiten. Low rank methods for a class of generalized Lyapunov equations and related issues. *Numerische Mathematik*, 124(3):441–470, July 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0521-0.

Barrenechea:2017:LTS

[BBB17] G. R. Barrenechea, L. Boulton, and N. Boussaïd. Local two-sided bounds for eigenvalues of self-adjoint operators. *Numerische Mathematik*, 135(4):953–986, April 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-016-0822-1; http://link.springer.com/content/pdf/10.1007/s00211-016-0822-1.pdf.

Betancourt:2018:RSM

[BBC+18] Fernando Betancourt, Raimund Bürger, Christophe Chalons, Stefan Diehl, and Sebastian Farås. A random sampling method for a family of Temple-class systems of conservation laws. *Numerische Mathematik*, 138(1):37–73, January 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0900-z.

Berselli:2016:CAF

[BBD16] Luigi C. Berselli, Dominic Breit, and Lars Diening. Convergence analysis for a finite element approximation of a steady model for electrorheological fluids. *Numerische Mathematik*, 132 (4):657–689, April 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0735-4.

Barbeiro:2018:NFC

[BBFP18] Sílvia Barbeiro, Somayeh Gh. Bardeji, José A. Ferreira, and Luís Pinto. Non-Fickian convection-diffusion models in porous media. *Numerische Mathematik*, 138(4):869–904, April 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0922-6.

Barrenechea:2017:EBN

[BBK17] Gabriel R. Barrenechea, Erik Burman, and Fotini Karakatsani. Edge-based nonlinear diffusion for finite element approximations of convection-diffusion equations and its relation to algebraic flux-correction schemes. *Numerische Mathematik*, 135(2):521–545, February 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-016-0808-z; http://link.springer.com/content/pdf/10.1007/s00211-016-0808-z.pdf.

Benner:2018:RLR

[BBKS18] Peter Benner, Zvonimir Bujanović, Patrick Kürschner, and Jens Saak. RADI: a low-rank ADI-type algorithm for large scale algebraic Riccati equations. *Numerische Mathematik*, 138(2):301–330, February 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0907-5; https://link.springer.com/content/pdf/10.1007/s00211-017-0907-5.pdf.

Babuska:2011:ENI

[BBL11] Ivo Babuska, Uday Banerjee, and Hengguang Li. The effect of numerical integration on the finite element approximation of linear functionals. *Numerische Mathematik*, 117 (1):65–88, January 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.

springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=1&spage=65.

Ballani:2013:NSE

[BBSV13] J. Ballani, L. Banjai, S. Sauter, and A. Veit. Numerical solution of exterior Maxwell problems by Galerkin BEM and Runge–Kutta convolution quadrature. *Numerische Mathematik*, 123(4): 643–670, April 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0503-7.

Bessemoulin-Chatard:2012:FVS

[BC12] Marianne Bessemoulin-Chatard. A finite volume scheme for convection-diffusion equations with nonlinear diffusion derived from the Scharfetter–Gummel scheme. *Numerische Mathematik*, 121(4):637–670, August 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=4&spage=637.

Bierig:2015:CAM

[BC15a] Claudio Bierig and Alexey Chernov. Convergence analysis of multilevel Monte Carlo variance estimators and application for random obstacle problems. *Numerische Mathematik*, 130(4): 579–613, August 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0676-3.

Bosing:2015:WPD

[BC15b] Paulo Rafael Bösing and Carsten Carstensen. Weakly over-penalized discontinuous Galerkin schemes for Reissner–Mindlin plates without the shear variable. *Numerische Mathematik*, 130 (3):395–423, July 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0672-7.

Borm:2016:AIO

[BC16] Steffen Börm and Sven Christophersen. Approximation of integral operators by Green quadrature and nested cross approximation. *Numerische Mathematik*, 133(3):409–442, July 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0757-y; http://link.springer.com/article/10.1007/s00211-015-0757-y.

Bringmann:2017:ALS

[BC17] P. Bringmann and C. Carstensen. An adaptive least-squares FEM for the Stokes equations with optimal convergence rates. *Numerische Mathematik*, 135(2):459–492, February 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0806-1; http://link.springer.com/article/10.1007/s00211-016-0806-1.

Bessemoulin-Chatard:2019:UTB

[BCCH19] M. Bessemoulin-Chatard and C. Chainais-Hillairet. Uniform-in-time bounds for approximate solutions of the drift–diffusion system. *Numerische Mathematik*, 141(4):881–916, April 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-01019-1.

Brix:2015:NDG

[BCD15] Kolja Brix, Claudio Canuto, and Wolfgang Dahmen. Nested dyadic grids associated with Legendre–Gauss–Lobatto grids. *Numerische Mathematik*, 131(2):205–239, October 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0691-4.

Brenner:2011:MAS

[BCGS11] S. C. Brenner, J. Cui, T. Gudi, and L.-Y. Sung. Multigrid algorithms for symmetric discontinuous Galerkin methods on graded meshes. *Numerische Mathematik*, 119(1):21–47, September 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=1&spage=21.

Bogfjellmo:2017:HSL

[BCM17] Geir Bogfjellmo, Charles Curry, and Dominique Manchon. Hamiltonian B-series and a Lie algebra of non-rooted trees. *Numerische Mathematik*, 135(1):97–112, January 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0792-3; http://link.springer.com/article/10.1007/s00211-016-0792-3.

Benamou:2016:DFI

[BCMO16] Jean-David Benamou, Guillaume Carlier, Quentin Mérigot, and Édouard Oudet. Discretization of functionals involving the Monge–Ampère operator. *Numerische Mathematik*, 134 (3):611–636, November 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0781-y; http://link.springer.com/article/10.1007/s00211-015-0781-y.

Benamou:2019:GIF

[BCN19] Jean-David Benamou, Guillaume Carlier, and Luca Nenna. Generalized incompressible flows, multi-marginal transport and Sinkhorn algorithm. *Numerische Mathematik*, 142(1):33–54, May 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0995-x.

Benmansour:2010:DRM

[BCPS10] F. Benmansour, G. Carlier, G. Peyré, and F. Santambrogio. Derivatives with respect to metrics and applications: subgradient marching algorithm. *Numerische Mathematik*, 116 (3):357–381, September 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=3&spage=357.

Bachmayr:2014:EEH

[BCS14a] Markus Bachmayr, Huajie Chen, and Reinhold Schneider. Error estimates for Hermite and even-tempered Gaussian approximations in quantum chemistry. *Numerische Mathematik*, 128(1): 137–165, September 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0605-5.

Bokanowski:2014:DGS

[BCS14b] Olivier Bokanowski, Yingda Cheng, and Chi-Wang Shu. A discontinuous Galerkin scheme for front propagation with obstacles. *Numerische Mathematik*, 126(1):1–31, January 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0555-3.

Bao:2019:RNM

[BCST19] Weizhu Bao, Rémi Carles, Chunmei Su, and Qinglin Tang. Regularized numerical methods for the logarithmic Schrödinger equation. *Numerische Mathematik*, 143(2):461–487, October 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-019-01058-2`.

Baldeaux:2011:CPL

[BD11] Jan Baldeaux and Josef Dick. A construction of polynomial lattice rules with small gain coefficients. *Numerische Mathematik*, 119(2):271–297, October 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=2&spage=271`.

Bao:2012:ACN

[BD12a] Weizhu Bao and Xuanchun Dong. Analysis and comparison of numerical methods for the Klein–Gordon equation in the nonrelativistic limit regime. *Numerische Mathematik*, 120(2):189–229, February 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=2&spage=189`.

Brauchart:2012:QMC

[BD12b] Johann S. Brauchart and Josef Dick. Quasi-Monte Carlo rules for numerical integration over the unit sphere $\mathtt{s}^2$. *Numerische Mathematik*, 121(3):473–502, July 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=3&spage=473`.

Buet:2012:DAP

[BDF12] Christophe Buet, Bruno Després, and Emmanuel Franck. Design of asymptotic preserving finite volume schemes for the hyperbolic heat equation on unstructured meshes. *Numerische Mathematik*, 122(2):227–278, October 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=2&spage=227`.

Bernardi:2018:FEM

[BDG+18] Christine Bernardi, Séréna Dib, Vivette Girault, Frédéric Hecht, François Murat, and Toni Sayah. Finite element methods for Darcy's problem coupled with the heat equation. *Numerische Mathematik*, 139(2):315–348, June 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0938-y.

Bramwell:2012:LFD

[BDGQ12] Jamie Bramwell, Leszek Demkowicz, Jay Gopalakrishnan, and Weifeng Qiu. A locking-free *hp* DPG method for linear elasticity with symmetric stresses. *Numerische Mathematik*, 122(4):671–707, December 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0476-6.

Bos:2012:LCB

[BDHK12] Len Bos, Stefano De Marchi, Kai Hormann, and Georges Klein. On the Lebesgue constant of barycentric rational interpolation at equidistant nodes. *Numerische Mathematik*, 121(3):461–471, July 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=3&spage=461.

Bertoluzza:2018:LEA

[BDLM18] Silvia Bertoluzza, Astrid Decoene, Loïc Lacouture, and Sébastien Martin. Local error analysis for the Stokes equations with a punctual source term. *Numerische Mathematik*, 140(3):677–701, November 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0976-0.

Badea:2010:NAN

[BDQ10] Lori Badea, Marco Discacciati, and Alfio Quarteroni. Numerical analysis of the Navier–Stokes/Darcy coupling. *Numerische Mathematik*, 115(2):195–227, April 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=2&spage=195.

Blanco:2011:MDH

[BDQ11] Pablo J. Blanco, Marco Discacciati, and Alfio Quarteroni. Modeling dimensionally-heterogeneous problems: analysis, approximation and applications. *Numerische Mathematik*, 119(2): 299–335, October 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=2&spage=299.

Bruno:2013:CAH

[BDS13] Oscar P. Bruno, Víctor Domínguez, and Francisco-Javier Sayas. Convergence analysis of a high-order Nyström integral-equation method for surface scattering problems. *Numerische Mathematik*, 124(4):603–645, August 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0525-9.

Bourdarias:2014:UMF

[BEG14] Christian Bourdarias, Mehmet Ersoy, and Stéphane Gerbi. Unsteady mixed flows in non uniform closed water pipes: a Full Kinetic Approach. *Numerische Mathematik*, 128(2):217–263, October 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0611-7.

Bukal:2014:ESE

[BEJ14] Mario Bukal, Etienne Emmrich, and Ansgar Jüngel. Entropy-stable and entropy-dissipative approximations of a fourth-order quantum diffusion equation. *Numerische Mathematik*, 127(2): 365–396, June 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0588-7.

Beyn:2011:CEI

[BEK11] Wolf-Jürgen Beyn, Cedric Effenberger, and Daniel Kressner. Continuation of eigenvalues and invariant pairs for parameterized nonlinear eigenvalue problems. *Numerische Mathematik*, 119(3):489–516, November 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=3&spage=489.

Beltran:2011:CMS

[Bel11] Carlos Beltrán. A continuation method to solve polynomial systems and its complexity. *Numerische Mathematik*, 117(1):89–113, January 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=1&spage=89.

Bertoluzza:2016:AMD

[Ber16] Silvia Bertoluzza. Analysis of a mesh-dependent stabilization for the three fields domain decomposition method. *Numerische Mathematik*, 133(1):1–36, May 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0742-5.

Bambusi:2013:ESG

[BFG13] Dario Bambusi, Erwan Faou, and Benoît Grébert. Existence and stability of ground states for fully discrete approximations of the nonlinear Schrödinger equation. *Numerische Mathematik*, 123 (3):461–492, March 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0491-7.

Brannick:2016:MPO

[BFK+16] James Brannick, Andreas Frommer, Karsten Kahl, Björn Leder, Matthias Rottmann, and Artur Strebel. Multigrid preconditioning for the overlap operator in lattice QCD. *Numerische Mathematik*, 132(3):463–490, March 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0725-6.

Beckermann:2012:SCR

[BG12] Bernhard Beckermann and Stefan Güttel. Superlinear convergence of the rational Arnoldi method for the approximation of matrix functions. *Numerische Mathematik*, 121 (2):205–236, June 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=2&spage=205.

Blandin:2016:WPC

[BG16] Sebastien Blandin and Paola Goatin. Well-posedness of a conservation law with non-local flux arising in traffic flow modeling. *Numerische Mathematik*, 132(2):217–241, February 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-015-0717-6`.

Boffi:2017:FDA

[BG17] Daniele Boffi and Lucia Gastaldi. A fictitious domain approach with Lagrange multiplier for fluid-structure interactions. *Numerische Mathematik*, 135(3):711–732, March 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s00211-016-0814-1`; `http://link.springer.com/article/10.1007/s00211-016-0814-1`.

Brenner:2016:GDH

[BGG$^+$16] Konstantin Brenner, Mayya Groza, Cindy Guichard, Gilles Lebeau, and Roland Masson. Gradient discretization of hybrid dimensional Darcy flows in fractured porous media. *Numerische Mathematik*, 134(3):569–609, November 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s00211-015-0782-x`; `http://link.springer.com/article/10.1007/s00211-015-0782-x`.

Bennequin:2016:OSW

[BGGH16] Daniel Bennequin, Martin J. Gander, Loic Gouarin, and Laurence Halpern. Optimized Schwarz waveform relaxation for advection reaction diffusion equations in two dimensions. *Numerische Mathematik*, 134(3):513–567, November 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s00211-015-0784-8`; `http://link.springer.com/article/10.1007/s00211-015-0784-8`.

Bousquet:2014:HOF

[BGHL14] Arthur Bousquet, Gung-Min Gie, Youngjoon Hong, and Jacques Laminie. A higher order Finite Volume resolution method for a system related to the inviscid primitive equations in a complex domain. *Numerische Mathematik*, 128(3):431–461, November 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-014-0622-4`.

Banz:2017:SMH

[BGIS17] Lothar Banz, Heiko Gimperlein, Abderrahman Issaoui, and Ernst P. Stephan. Stabilized mixed hp-BEM for frictional contact problems in linear elasticity. *Numerische Mathematik*, 135(1):217–263, January 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0797-y; http://link.springer.com/article/10.1007/s00211-016-0797-y.

BenBelgacem:2018:ALF

[BGJ18] F. Ben Belgacem, V. Girault, and F. Jelassi. Analysis of Lavrentiev-finite element methods for data completion problems. *Numerische Mathematik*, 139(1):1–25, May 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0930-6.

Barrett:2012:PAI

[BGN12] John W. Barrett, Harald Garcke, and Robert Nürnberg. Parametric approximation of isotropic and anisotropic elastic flow for closed and open curves. *Numerische Mathematik*, 120 (3):489–542, March 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=3&spage=489.

Barrett:2016:SNM

[BGN16] John W. Barrett, Harald Garcke, and Robert Nürnberg. A stable numerical method for the dynamics of fluidic membranes. *Numerische Mathematik*, 134(4):783–822, December 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0787-5; http://link.springer.com/content/pdf/10.1007/s00211-015-0787-5.pdf.

Barrett:2019:VDA

[BGN19] John W. Barrett, Harald Garcke, and Robert Nürnberg. Variational discretization of axisymmetric curvature flows. *Numerische Mathematik*, 141(3):791–837, March 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-1013-z;

https://link.springer.com/content/pdf/10.1007/s00211-018-1013-z.pdf.

Bellavia:2018:LMM

[BGR18] Stefania Bellavia, Serge Gratton, and Elisa Riccietti. A Levenberg–Marquardt method for large nonlinear least-squares problems with dynamic accuracy in functions and gradients. *Numerische Mathematik*, 140(3):791–825, November 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0977-z.

Byckling:2011:AFI

[BH11] Mikko Byckling and Marko Huhtanen. Approximate factoring of the inverse. *Numerische Mathematik*, 117(3):507–528, March 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=3&spage=507.

Bause:2010:FOC

[BHK10] Markus Bause, Joachim Hoffmann, and Peter Knabner. First-order convergence of multi-point flux approximation on triangular grids and comparison with mixed finite element methods. *Numerische Mathematik*, 116(1):1–29, July 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=1&spage=1.

Boyer:2011:UCP

[BHL11] Franck Boyer, Florence Hubert, and Jérôme Le Rousseau. Uniform controllability properties for space/time-discretized parabolic equations. *Numerische Mathematik*, 118(4):601–661, August 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=4&spage=601.

Burman:2019:FEA

[BHL+19] Erik Burman, Peter Hansbo, Mats G. Larson, Karl Larsson, and André Massing. Finite element approximation of the Laplace–Beltrami operator on a surface with boundary. *Numerische*

Mathematik, 141(1):141–172, January 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0990-2; https://link.springer.com/content/pdf/10.1007/s00211-018-0990-2.pdf.

Burman:2016:CFE

[BHLZ16] Erik Burman, Peter Hansbo, Mats G. Larson, and Sara Zahedi. Cut finite element methods for coupled bulk-surface problems. *Numerische Mathematik*, 133(2):203–231, June 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0744-3.

Burman:2019:SCC

[BHLZ19] Erik Burman, Peter Hansbo, Mats G. Larson, and Sara Zahedi. Stabilized CutFEM for the convection problem on surfaces. *Numerische Mathematik*, 141(1):103–139, January 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0989-8; https://link.springer.com/content/pdf/10.1007/s00211-018-0989-8.pdf.

BenChaabane:2017:NFV

[BHT17] Soumaya Ben Chaabane, Makram Hamouda, and Mahdi Tekitek. New Finite Volume Method for rotating channel flows involving boundary layers. *Numerische Mathematik*, 136(3):651–678, July 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Bertoluzza:2011:AFD

[BIM11] Silvia Bertoluzza, Mourad Ismail, and Bertrand Maury. Analysis of the fully discrete fat boundary method. *Numerische Mathematik*, 118(1):49–77, May 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=1&spage=49.

Bazhlekova:2015:ARS

[BJLZ15] Emilia Bazhlekova, Bangti Jin, Raytcho Lazarov, and Zhi Zhou. An analysis of the Rayleigh–Stokes problem for a generalized second-grade fluid. *Numerische Mathematik*, 131(1):1–31, September 2015. CODEN NUMMA7. ISSN

0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0685-2; http://link.springer.com/content/pdf/10.1007/s00211-014-0685-2.pdf.

Badea:2012:OTL

[BK12] L. Badea and R. Krause. One- and two-level Schwarz methods for variational inequalities of the second kind and their application to frictional contact. *Numerische Mathematik*, 120 (4):573–599, April 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=4&spage=573.

Bonito:2013:TDH

[BKN13] Andrea Bonito, Irene Kyza, and Ricardo H. Nochetto. Time-discrete higher order ALE formulations: a priori error analysis. *Numerische Mathematik*, 125(2):225–257, October 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0539-3.

Burger:2010:SOS

[BKTT10] Raimund Bürger, Kenneth H. Karlsen, Héctor Torres, and John D. Towers. Second-order schemes for conservation laws with discontinuous flux modelling clarifier-thickener units. *Numerische Mathematik*, 116(4):579–617, October 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=4&spage=579.

Byrenheid:2017:TEB

[BKUV17] Glenn Byrenheid, Lutz Kämmerer, Tino Ullrich, and Toni Volkmer. Tight error bounds for rank-1 lattice sampling in spaces of hybrid mixed smoothness. *Numerische Mathematik*, 136(4): 993–1034, August 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Bebendorf:2015:WNC

[BKV15] M. Bebendorf, C. Kuske, and R. Venn. Wideband nested cross approximation for Helmholtz problems. *Numerische Mathematik*, 130(1):1–34, May 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-014-0656-7`.

Bouchut:2010:MAR

[BKW10] François Bouchut, Christian Klingenberg, and Knut Waagan. A multiwave approximate Riemann solver for ideal MHD based on relaxation II: numerical implementation with 3 and 5 waves. *Numerische Mathematik*, 115(4):647–679, June 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=4&spage=647`.

Bai:2013:MIA

[BL13a] Zhong-Zhi Bai and Xin-Guo Liu. On the Meany inequality with applications to convergence analysis of several row-action iteration methods. *Numerische Mathematik*, 124(2):215–236, June 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-012-0512-6`.

Beyn:2013:EAH

[BL13b] Wolf-Jürgen Beyn and Alexander Lust. Error analysis of a hybrid method for computing Lyapunov exponents. *Numerische Mathematik*, 123(2):189–217, February 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-012-0486-4`.

Bouchut:2017:MWB

[BL17] François Bouchut and Xavier Lhébrard. A multi well-balanced scheme for the shallow water MHD system with topography. *Numerische Mathematik*, 136(4):875–905, August 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Banjai:2019:EHO

[BLF19] L. Banjai and M. López-Fernández. Efficient high order algorithms for fractional integrals and fractional differential equations. *Numerische Mathematik*, 141(2):289–317, February 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-018-1004-0`; `https://link.springer.com/content/pdf/10.1007/s00211-018-1004-0.pdf`.

Babenko:2011:SAA

[BLM11a] Yuliya Babenko, Tatyana Leskevich, and Jean-Marie Mirebeau. Sharp asymptotics of the L_p approximation error for interpolation on block partitions. *Numerische Mathematik*, 117(3):397–423, March 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=3&spage=397.

Banjai:2011:RKC

[BLM11b] Lehel Banjai, Christian Lubich, and Jens Markus Melenk. Runge–Kutta convolution quadrature for operators arising in wave propagation. *Numerische Mathematik*, 119(1):1–20, September 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=1&spage=1.

Beckermann:2018:RFF

[BLM18] Bernhard Beckermann, George Labahn, and Ana C. Matos. On rational functions without Froissart doublets. *Numerische Mathematik*, 138(3):615–633, March 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0917-3.

Bonito:2019:NAI

[BLP19] Andrea Bonito, Wenyu Lei, and Joseph E. Pasciak. Numerical approximation of the integral fractional Laplacian. *Numerische Mathematik*, 142(2):235–278, June 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01025-x.

Brenner:2014:MMS

[BLS14] Susanne C. Brenner, Hengguang Li, and Li-Yeng Sung. Multigrid methods for saddle point problems: Stokes and Lamé systems. *Numerische Mathematik*, 128(2):193–216, October 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0607-3.

Banjai:2015:SNC

[BLS15] Lehel Banjai, Christian Lubich, and Francisco-Javier Sayas. Stable numerical coupling of exterior and interior problems for the wave equation. *Numerische Mathematik*, 129(4):611–646, April 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0650-0.

Bartels:2011:ECA

[BM11] Sören Bartels and Rüdiger Müller. Error control for the approximation of Allen–Cahn and Cahn–Hilliard equations with a logarithmic potential. *Numerische Mathematik*, 119 (3):409–435, November 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=3&spage=409.

Baum:2013:NIP

[BM13] A. K. Baum and V. Mehrmann. Numerical integration of positive linear differential-algebraic systems. *Numerische Mathematik*, 124(2):279–307, June 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0514-z.

Borm:2017:AHF

[BM17] Steffen Börm and Jens M. Melenk. Approximation of the high-frequency Helmholtz kernel by nested directional interpolation: error analysis. *Numerische Mathematik*, 137(1):1–34, September 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Bini:2019:ESI

[BM19] Dario A. Bini and Beatrice Meini. On the exponential of semi-infinite quasi-Toeplitz matrices. *Numerische Mathematik*, 141(2): 319–351, February 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-1006-y.

Besse:2018:ABC

[BMGN18] Christophe Besse, Benoît Mésognon-Gireau, and Pascal Noble. Artificial boundary conditions for the linearized Benjamin–Bona–Mahony equation. *Numerische Mathematik*, 139(2):281–314, June 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0943-1.

Bansch:2011:PCF

[BMN11] Eberhard Bänsch, Pedro Morin, and Ricardo H. Nochetto. Preconditioning a class of fourth order problems by operator splitting. *Numerische Mathematik*, 118(2):197–228, June 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=2&spage=197.

Bretin:2015:PFA

[BMO15] Elie Bretin, Simon Masnou, and Édouard Oudet. Phase-field approximations of the Willmore functional and flow. *Numerische Mathematik*, 131(1):115–171, September 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0683-4.

Bini:2010:TAR

[BMP10] Dario A. Bini, Beatrice Meini, and Federico Poloni. Transforming algebraic Riccati equations into unilateral quadratic matrix equations. *Numerische Mathematik*, 116(4):553–578, October 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=4&spage=553.

Beigel:2014:AWA

[BMWB14] Dörte Beigel, Mario S. Mommer, Leonard Wirsching, and Hans Georg Bock. Approximation of weak adjoints by reverse automatic differentiation of BDF methods. *Numerische Mathematik*, 126(3):383–412, March 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0570-4.

Bokanowski:2010:CNM

[BMZ10] Olivier Bokanowski, Nadia Megdich, and Hasnaa Zidani. Convergence of a non-monotone scheme for Hamilton–Jacobi–Bellman equations with discontinous initial data. *Numerische Mathematik*, 115(1):1–44, March 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=1&spage=1.

Bespalov:2016:BGM

[BN16] A. Bespalov and S. Nicaise. The BEM with graded meshes for the electric field integral equation on polyhedral surfaces. *Numerische Mathematik*, 132(4):631–655, April 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0736-3.

Brenner:2017:IPM

[BNRS17] Susanne C. Brenner, Michael Neilan, Armin Reiser, and Li-Yeng Sung. A C^0 interior penalty method for a von Kármán plate. *Numerische Mathematik*, 135(3):803–832, March 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0817-y; http://link.springer.com/article/10.1007/s00211-016-0817-y.

Bank:2017:SRI

[BO17] Randolph E. Bank and Jeffrey S. Ovall. Some remarks on interpolation and best approximation. *Numerische Mathematik*, 137 (2):289–302, October 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0877-7.

Burman:2018:DAH

[BO18] Erik Burman and Lauri Oksanen. Data assimilation for the heat equation using stabilized finite element methods. *Numerische Mathematik*, 139(3):505–528, July 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0949-3; https://link.springer.com/content/pdf/10.1007/s00211-018-0949-3.pdf.

Banjai:2019:PAF

[BO19] Lehel Banjai and Enrique Otárola. A PDE approach to fractional diffusion: a space-fractional wave equation. *Numerische Mathematik*, 143(1):177–222, September 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01055-5.

Borm:2010:ASO

[Bör10] Steffen Börm. Approximation of solution operators of elliptic partial differential equations by H H- and $H^2\mathcal{H}^2$-matrices.

Numerische Mathematik, 115(2):165–193, April 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=2&spage=165`.

Brenner:2018:MMS

[BOS18] Susanne C. Brenner, Duk-Soon Oh, and Li-Yeng Sung. Multigrid methods for saddle point problems: Darcy systems. *Numerische Mathematik*, 138(2):437–471, February 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-017-0911-9`.

Banas:2010:FEA

[BPS10] L'ubomír Bañas, Andreas Prohl, and Reiner Schätzle. Finite element approximations of harmonic map heat flows and wave maps into spheres of nonconstant radii. *Numerische Mathematik*, 115(3):395–432, May 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=3&spage=395`.

Beuchler:2012:SOH

[BPZ12] Sven Beuchler, Veronika Pillwein, and Sabine Zaglmayr. Sparsity optimized high order finite element functions for $H(\mathrm{div})$ on simplices. *Numerische Mathematik*, 122(2):197–225, October 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=2&spage=197`.

Berlinet:2011:GIS

[BR11] Alain F. Berlinet and Christophe Roland. Geometric interpretation of some Cauchy related methods. *Numerische Mathematik*, 119(3):437–464, November 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=3&spage=437`.

Bosner:2017:QCA

[BR17] Tina Bosner and Mladen Rogina. Quadratic convergence of approximations by CCC–Schoenberg operators. *Numerische*

Mathematik, 135(4):1253–1287, April 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0831-0; http://link.springer.com/article/10.1007/s00211-016-0831-0.

Brenner:2013:AAM

[Bre13] Susanne C. Brenner. An additive analysis of multiplicative Schwarz methods. *Numerische Mathematik*, 123(1):1–19, January 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0479-3.

Bause:2017:EAD

[BRK17] Markus Bause, Florin A. Radu, and Uwe Köcher. Error analysis for discretizations of parabolic problems using continuous finite elements in time and mixed finite elements in space. *Numerische Mathematik*, 137(4):773–818, December 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0894-6; https://link.springer.com/content/pdf/10.1007/s00211-017-0894-6.pdf.

Brezinski:2013:PTR

[BRZ13] Claude Brezinski and Michela Redivo-Zaglia. Padé-type rational and barycentric interpolation. *Numerische Mathematik*, 125(1):89–113, September 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0535-7.

Burman:2010:BSD

[BS10] Erik Burman and Benjamin Stamm. Bubble stabilized discontinuous Galerkin method for parabolic and elliptic problems. *Numerische Mathematik*, 116(2):213–241, August 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=2&spage=213.

Bermejo:2012:MLG

[BS12] Rodolfo Bermejo and Laura Saavedra. Modified Lagrange–Galerkin methods of first and second order in time for convection-diffusion problems. *Numerische Mathematik*, 120

(4):601–638, April 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=4&spage=601.

Barlow:2013:RBC

[BS13] Jesse L. Barlow and Alicja Smoktunowicz. Reorthogonalized block classical Gram–Schmidt. *Numerische Mathematik*, 123(3): 395–423, March 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0496-2.

Benzi:2017:AFL

[BS17] Michele Benzi and Valeria Simoncini. Approximation of functions of large matrices with Kronecker structure. *Numerische Mathematik*, 135(1):1–26, January 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0799-9; http://link.springer.com/article/10.1007/s00211-016-0799-9.

Bressan:2019:AFD

[BS19] Andrea Bressan and Espen Sande. Approximation in FEM, DG and IGA: a theoretical comparison. *Numerische Mathematik*, 143(4):923–942, December 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01063-5.

Bai:2012:NIE

[BSCZ12] Zheng-Jian Bai, Stefano Serra-Capizzano, and Zhi Zhao. Nonnegative inverse eigenvalue problems with partial eigendata. *Numerische Mathematik*, 120(3):387–431, March 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=3&spage=387.

Barth:2011:MLM

[BSZ11] Andrea Barth, Christoph Schwab, and Nathaniel Zollinger. Multi-level Monte Carlo Finite Element method for elliptic PDEs with stochastic coefficients. *Numerische Mathematik*, 119(1):123–161, September 2011. CODEN NUMMA7. ISSN

0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=1&spage=123.

Bardos:2015:SSC

[BT15] Claude Bardos and Eitan Tadmor. Stability and spectral convergence of Fourier method for nonlinear problems: on the shortcomings of the 2/3 de-aliasing method. *Numerische Mathematik*, 129 (4):749–782, April 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0652-y.

Bebendorf:2012:CNB

[BV12] M. Bebendorf and R. Venn. Constructing nested bases approximations from the entries of non-local operators. *Numerische Mathematik*, 121(4):609–635, August 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=4&spage=609.

Breda:2014:ALE

[BV14] Dimitri Breda and Erik Van Vleck. Approximating Lyapunov exponents and Sacker–Sell spectrum for retarded functional differential equations. *Numerische Mathematik*, 126(2):225–257, February 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0565-1.

Betcke:2017:RIP

[BV17] Marta M. Betcke and Heinrich Voss. Restarting iterative projection methods for Hermitian nonlinear eigenvalue problems with minmax property. *Numerische Mathematik*, 135 (2):397–430, February 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-016-0804-3; http://link.springer.com/content/pdf/10.1007/s00211-016-0804-3.pdf.

Bank:2014:HHS

[BY14] Randolph E. Bank and Harry Yserentant. On the H^1-stability of the L_2-projection onto finite element spaces. *Numerische Mathematik*, 126(2):361–381, February 2014. CODEN NUMMA7. ISSN

0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0562-4.

Bank:2015:NIB

[BY15] Randolph E. Bank and Harry Yserentant. A note on interpolation, best approximation, and the saturation property. *Numerische Mathematik*, 131(1):199–203, September 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0687-0.

Beale:2019:SDP

[BY19] J. Thomas Beale and Wenjun Ying. Solution of the Dirichlet problem by a finite difference analog of the boundary integral equation. *Numerische Mathematik*, 141(3):605–626, March 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-1010-2.

Bao:2017:UAU

[BZ17] Weizhu Bao and Xiaofei Zhao. A uniformly accurate (UA) multiscale time integrator Fourier pseudospectral method for the Klein–Gordon–Schrödinger equations in the nonrelativistic limit regime. *Numerische Mathematik*, 135(3):833–873, March 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0818-x; http://link.springer.com/article/10.1007/s00211-016-0818-x.

Calder:2017:NSR

[Cal17] Jeff Calder. Numerical schemes and rates of convergence for the Hamilton–Jacobi equation continuum limit of nondominated sorting. *Numerische Mathematik*, 137(4):819–856, December 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0895-5.

Carstensen:2018:NDP

[CBHW18] C. Carstensen, P. Bringmann, F. Hellwig, and P. Wriggers. Nonlinear discontinuous Petrov–Galerkin methods. *Numerische Mathematik*, 139(3):529–561, July 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0947-5.

Claeys:2010:AGS

[CC10a] X. Claeys and F. Collino. Augmented Galerkin schemes for the numerical solution of scattering by small obstacles. *Numerische Mathematik*, 116(2):243–268, August 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=2&spage=243.

Clain:2010:SMM

[CC10b] Stéphane Clain and Vivien Clauzon. L^∞ stability of the MUSCL methods. *Numerische Mathematik*, 116(1):31–64, July 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=1&spage=31.

Chesnel:2013:CCG

[CC13] Lucas Chesnel and Patrick Ciarlet, Jr. T-coercivity and continuous Galerkin methods: application to transmission problems with sign changing coefficients. *Numerische Mathematik*, 124(1):1–29, May 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0510-8.

Casas:2015:EED

[CC15] Eduardo Casas and Konstantinos Chrysafinos. Error estimates for the discretization of the velocity tracking problem. *Numerische Mathematik*, 130(4):615–643, August 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0680-7.

Casas:2019:NAQ

[CC19] Eduardo Casas and Konstantinos Chrysafinos. Numerical analysis of quasilinear parabolic equations under low regularity assumptions. *Numerische Mathematik*, 143(4):749–780, December 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01071-5.

Casas:2017:HOH

[CCFM17] Fernando Casas, Nicolas Crouseilles, Erwan Faou, and Michel Mehrenberger. High-order Hamiltonian splitting for the Vlasov–

Poisson equations. *Numerische Mathematik*, 135(3):769–801, March 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0816-z; http://link.springer.com/article/10.1007/s00211-016-0816-z.

Charina:2017:RNS

[CCGP17] M. Charina, C. Conti, N. Guglielmi, and V. Protasov. Regularity of non-stationary subdivision: a matrix approach. *Numerische Mathematik*, 135(3):639–678, March 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-016-0809-y; http://link.springer.com/content/pdf/10.1007/s00211-016-0809-y.pdf.

Chartier:2015:UAN

[CCLM15] Philippe Chartier, Nicolas Crouseilles, Mohammed Lemou, and Florian Méhats. Uniformly accurate numerical schemes for highly oscillatory Klein–Gordon and nonlinear Schrödinger equations. *Numerische Mathematik*, 129(2):211–250, February 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0638-9.

Cacace:2012:PEE

[CCM12] S. Cacace, A. Chambolle, and R. Monneau. A posteriori error estimates for the effective Hamiltonian of dislocation dynamics. *Numerische Mathematik*, 121(2):281–335, June 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=2&spage=281.

Cances:2013:MCG

[CCP13] Clément Cancès, Mathieu Cathala, and Christophe Le Potier. Monotone corrections for generic cell-centered finite volume approximations of anisotropic diffusion equations. *Numerische Mathematik*, 125(3):387–417, November 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0545-5.

Chen:2013:NTC

[CCQ13] Hongru Chen, Shaochun Chen, and Zhonghua Qiao. C^0-nonconforming tetrahedral and cuboid elements for the three-dimensional fourth order elliptic problem. *Numerische Mathematik*, 124(1):99–119, May 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0508-2.

Charina:2014:REP

[CCR14] Maria Charina, Costanza Conti, and Lucia Romani. Reproduction of exponential polynomials by multivariate non-stationary subdivision schemes with a general dilation matrix. *Numerische Mathematik*, 127(2):223–254, June 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0587-8.

Cai:2017:EET

[CCS17] Yongyong Cai, Heejun Choi, and Jie Shen. Error estimates for time discretizations of Cahn–Hilliard and Allen–Cahn phase-field models for two-phase incompressible flows. *Numerische Mathematik*, 137(2):417–449, October 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0875-9.

Ciarlet:2016:IFE

[CCSS16] P. G. Ciarlet, P. Ciarlet, Jr., S. A. Sauter, and C. Simian. Intrinsic finite element methods for the computation of fluxes for Poisson's equation. *Numerische Mathematik*, 132(3):433–462, March 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0730-9.

Chen:2013:AAP

[CCZ13] Zhiming Chen, Tao Cui, and Linbo Zhang. An adaptive anisotropic perfectly matched layer method for 3-D time harmonic electromagnetic scattering problems. *Numerische Mathematik*, 125(4):639–677, December 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0550-8.

Casas:2011:EEN

[CD11] Eduardo Casas and Vili Dhamo. Error estimates for the numerical approximation of a quasilinear Neumann problem under minimal regularity of the data. *Numerische Mathematik*, 117(1):115–145, January 2011. CODEN NUMMA7. ISSN

0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=1&spage=115.

Chertock:2018:WBS

[CDKLM18] Alina Chertock, Michael Dudzinski, Alexander Kurganov, and Mária Lukácová-Medvid'ová. Well-balanced schemes for the shallow water equations with Coriolis forces. *Numerische Mathematik*, 138(4):939–973, April 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0928-0.

Cheng:2019:CAF

[CDL19] Hanz Martin Cheng, Jérôme Droniou, and Kim-Ngan Le. Convergence analysis of a family of ELLAM schemes for a fully coupled model of miscible displacement in porous media. *Numerische Mathematik*, 141(2):353–397, February 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-1002-2.

Cances:2018:GRP

[CDM+18] Eric Cancès, Geneviève Dusson, Yvon Maday, Benjamin Stamm, and Martin Vohralík. Guaranteed and robust a posteriori bounds for Laplace eigenvalues and eigenvectors: a unified framework. *Numerische Mathematik*, 140(4):1033–1079, December 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0984-0.

Carstensen:2016:EAN

[CDNP16] Carsten Carstensen, Asha K. Dond, Neela Nataraj, and Amiya K. Pani. Error analysis of nonconforming and mixed FEMs for second-order linear non-selfadjoint and indefinite elliptic problems. *Numerische Mathematik*, 133(3):557–597, July 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0755-0; http://link.springer.com/article/10.1007/s00211-015-0755-0.

Cances:2014:NCA

[CEM14] Eric Cancès, Virginie Ehrlacher, and Yvon Maday. Non-consistent approximations of self-adjoint eigenproblems: application to the supercell method. *Numerische Mathematik*, 128(4):

663–706, December 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-014-0626-0`.

Chen:2011:CEP

[CFL11] Xiaojun Chen, Andreas Frommer, and Bruno Lang. Computational existence proofs for spherical t-designs. *Numerische Mathematik*, 117(2):289–305, February 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=2&spage=289`.

Carstensen:2011:OFA

[CG11] Carsten Carstensen and Joscha Gedicke. An oscillation-free adaptive FEM for symmetric eigenvalue problems. *Numerische Mathematik*, 118(3):401–427, July 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=3&spage=401`.

Carstensen:2014:GLE

[CG14] Carsten Carstensen and Dietmar Gallistl. Guaranteed lower eigenvalue bounds for the biharmonic equation. *Numerische Mathematik*, 126(1):33–51, January 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0559-z`.

Carles:2017:FTS

[CG17] Rémi Carles and Clément Gallo. On Fourier time-splitting methods for nonlinear Schrödinger equations in the semi-classical limit II. Analytic regularity. *Numerische Mathematik*, 136(1):315–342, May 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Carstensen:2016:JSA

[CGG16] C. Carstensen, D. Gallistl, and J. Gedicke. Justification of the saturation assumption. *Numerische Mathematik*, 134(1):1–25, September 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s00211-015-0769-7`; `http://link.springer.com/article/10.1007/s00211-015-0769-7`.

Carstensen:2019:RBP

[CGG19] Carsten Carstensen, Dietmar Gallistl, and Joscha Gedicke. Residual-based a posteriori error analysis for symmetric mixed Arnold–Winther FEM. *Numerische Mathematik*, 142(2):205–234, June 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01029-7; https://link.springer.com/content/pdf/10.1007/s00211-019-01029-7.pdf.

Carstensen:2013:PEE

[CGH13] Carsten Carstensen, Dietmar Gallistl, and Jun Hu. A posteriori error estimates for nonconforming finite element methods for fourth-order problems on rectangles. *Numerische Mathematik*, 124(2):309–335, June 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0513-5.

Cao:2011:RRD

[CGHW11] Yanzhao Cao, Max Gunzburger, Xiaoming He, and Xiaoming Wang. Robin–Robin domain decomposition methods for the steady-state Stokes–Darcy system with the Beavers–Joseph interface condition. *Numerische Mathematik*, 117(4):601–629, April 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=4&spage=601.

Cotter:2018:MFE

[CGK18] Colin J. Cotter, P. Jameson Graber, and Robert C. Kirby. Mixed finite elements for global tide models with nonlinear damping. *Numerische Mathematik*, 140(4):963–991, December 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0980-4.

Carstensen:2011:AHA

[CGMM11] C. Carstensen, J. Gedicke, V. Mehrmann, and A. Miedlar. An adaptive homotopy approach for non-selfadjoint eigenvalue problems. *Numerische Mathematik*, 119(3):557–583, November 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=3&spage=557.

Carstensen:2014:AFE

[CGMM14] C. Carstensen, J. Gedicke, V. Mehrmann, and A. Miedlar. An adaptive finite element method with asymptotic saturation for eigenvalue problems. *Numerische Mathematik*, 128(4):615–634, December 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-014-0624-2`.

Cangiani:2017:PEE

[CGPS17] Andrea Cangiani, Emmanuil H. Georgoulis, Tristan Pryer, and Oliver J. Sutton. A posteriori error estimates for the virtual element method. *Numerische Mathematik*, 137(4):857–893, December 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-017-0891-9`; `https://link.springer.com/content/pdf/10.1007/s00211-017-0891-9.pdf`.

Costea:2014:NHI

[CGS14] Adrian Costea, Heiko Gimperlein, and Ernst P. Stephan. A Nash–Hörmander iteration and boundary elements for the Molodensky problem. *Numerische Mathematik*, 127(1):1–34, May 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0579-8`.

Chen:2016:ELT

[CGSW16] Wenbin Chen, Max Gunzburger, Dong Sun, and Xiaoming Wang. An efficient and long-time accurate third-order algorithm for the Stokes–Darcy system. *Numerische Mathematik*, 134(4):857–879, December 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s00211-015-0789-3`; `http://link.springer.com/article/10.1007/s00211-015-0789-3`.

Chouly:2012:NBD

[CH12] Franz Chouly and Norbert Heuer. A Nitsche-based domain decomposition method for hypersingular integral equations. *Numerische Mathematik*, 121(4):705–729, August 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=4&spage=705`.

Christiansen:2018:GFE

[CH18a] Snorre H. Christiansen and Kaibo Hu. Generalized finite element systems for smooth differential forms and Stokes' problem. *Numerische Mathematik*, 140(2):327–371, October 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0970-6.

Cirillo:2018:IAB

[CH18b] Emiliano Cirillo and Kai Hormann. An iterative approach to barycentric rational Hermite interpolation. *Numerische Mathematik*, 140(4):939–962, December 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0986-y.

Colbrook:2019:IDQ

[CH19] Matthew J. Colbrook and Anders C. Hansen. On the infinite-dimensional QR algorithm. *Numerische Mathematik*, 143(1):17–83, September 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01047-5; https://link.springer.com/content/pdf/10.1007/s00211-019-01047-5.pdf.

Chavez:2011:DDS

[Chá11] Joseph Páez Chávez. Discretizing dynamical systems with generalized Hopf bifurcations. *Numerische Mathematik*, 118(2):229–246, June 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=2&spage=229.

Chen:2012:PSK

[Che12] Chin-Yun Chen. On the properties of Sard kernels and multiple error estimates for bounded linear functionals of bivariate functions with application to non-product cubature. *Numerische Mathematik*, 122(4):603–643, December 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0471-y.

Chen:2016:STN

[Che16a] Qingshan Chen. On staggering techniques and the non-staggered Z-grid scheme. *Numerische Mathematik*, 132(1):1–21, January 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0715-8.

Chen:2016:EST

[Che16b] Xiao Shan Chen. On estimating the separation of two regular matrix pairs. *Numerische Mathematik*, 134(2):223–247, October 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0775-9; http://link.springer.com/article/10.1007/s00211-015-0775-9.

Christiansen:2018:NFE

[CHH18] Snorre H. Christiansen, Jun Hu, and Kaibo Hu. Nodal finite element de Rham complexes. *Numerische Mathematik*, 139(2):411–446, June 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0939-x.

Console:2013:SMM

[CHL13] Paola Console, Ernst Hairer, and Christian Lubich. Symmetric multistep methods for constrained Hamiltonian systems. *Numerische Mathematik*, 124(3):517–539, July 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0522-z.

Cho:2018:CBS

[Cho18] Chien-Hong Cho. On the computation for blow-up solutions of the nonlinear wave equation. *Numerische Mathematik*, 138(3):537–556, March 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0919-1.

Christiansen:2011:LRC

[Chr11] Snorre H. Christiansen. On the linearization of Regge calculus. *Numerische Mathematik*, 119(4):613–640, December 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?

genre=article&issn=0029-599X&volume=119&issue=4&spage=613.

Cermak:2018:AII

[CHTV18] Martin Cermák, Frédéric Hecht, Zuqi Tang, and Martin Vohralík. Adaptive inexact iterative algorithms based on polynomial-degree-robust a posteriori estimates for the Stokes problem. *Numerische Mathematik*, 138(4):1027–1065, April 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0925-3.

Casas:2012:ASC

[CHW12] Eduardo Casas, Roland Herzog, and Gerd Wachsmuth. Approximation of sparse controls in semilinear equations by piecewise linear functions. *Numerische Mathematik*, 122(4):645–669, December 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0475-7.

Chen:2017:USE

[CHW17] Wenbin Chen, Daozhi Han, and Xiaoming Wang. Uniquely solvable and energy stable decoupled numerical schemes for the Cahn–Hilliard–Stokes–Darcy system for two-phase flows in karstic geometry. *Numerische Mathematik*, 137(1):229–255, September 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Cifani:2014:NME

[CJ14] Simone Cifani and Espen R. Jakobsen. On numerical methods and error estimates for degenerate fractional convection-diffusion equations. *Numerische Mathematik*, 127(3):447–483, July 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0590-0.

Cotter:2016:MFE

[CK16] Colin J. Cotter and Robert C. Kirby. Mixed finite elements for global tide models. *Numerische Mathematik*, 133(2):255–277, June 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0748-z; http://link.springer.com/content/pdf/10.1007/s00211-015-0748-z.pdf.

Chertock:2014:CUS

[CKL14] Alina Chertock, Alexander Kurganov, and Yu Liu. Central-upwind schemes for the system of shallow water equations with horizontal temperature gradients. *Numerische Mathematik*, 127 (4):595–639, August 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0597-6`.

Carstensen:2019:CEE

[CLA19] Carsten Carstensen, Dongjie Liu, and Jochen Alberty. Convergence of dG(1) in elastoplastic evolution. *Numerische Mathematik*, 141(3):715–742, March 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-018-0999-6`.

Cai:2019:AFD

[CLLS19] Wentao Cai, Buyang Li, Yanping Lin, and Weiwei Sun. Analysis of fully discrete FEM for miscible displacement in porous media with Bear–Scheidegger diffusion tensor. *Numerische Mathematik*, 141(4):1009–1042, April 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-019-01030-0`.

Costeseque:2015:CSH

[CLM15] Guillaume Costeseque, Jean-Patrick Lebacque, and Régis Monneau. A convergent scheme for Hamilton–Jacobi equations on a junction: application to traffic. *Numerische Mathematik*, 129 (3):405–447, March 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-014-0643-z`.

Chartier:2017:HOE

[CLM17] Philippe Chartier, Mohammed Lemou, and Florian Méhats. Highly-oscillatory evolution equations with multiple frequencies: averaging and numerics. *Numerische Mathematik*, 136(4):907–939, August 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Chan:2018:CNC

[CLMS18] Raymond Chan, Alessandro Lanza, Serena Morigi, and Fiorella Sgallari. Convex non-convex image segmentation. *Numerische Mathematik*, 138(3):635–680, March 2018. CODEN NUMMA7.

ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0916-4.

Costantini:2010:GAH

[CM10] Paolo Costantini and Carla Manni. A geometric approach for Hermite subdivision. *Numerische Mathematik*, 115(3): 333–369, May 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=3&spage=333.

Carstensen:2013:EPE

[CM13] C. Carstensen and C. Merdon. Effective postprocessing for equilibration a posteriori error estimators. *Numerische Mathematik*, 123(3):425–459, March 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0494-4.

Cockburn:2015:HDG

[CM15] Bernardo Cockburn and Kassem Mustapha. A hybridizable discontinuous Galerkin method for fractional diffusion problems. *Numerische Mathematik*, 130(2):293–314, June 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0661-x.

Christof:2018:NPE

[CM18] Constantin Christof and Christian Meyer. A note on a priori $\mathbf{L^p}$-error estimates for the obstacle problem. *Numerische Mathematik*, 139(1):27–45, May 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0931-5.

Chartier:2014:MRC

[CMMV14] Philippe Chartier, Joseba Makazaga, Ander Murua, and Gilles Vilmart. Multi-revolution composition methods for highly oscillatory differential equations. *Numerische Mathematik*, 128(1): 167–192, September 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0602-0.

Cindea:2013:APS

[CMP13] Nicolae Cîndea, Sorin Micu, and Jardel Morais Pereira. Approximation of periodic solutions for a dissipative hyperbolic equation. *Numerische Mathematik*, 124(3):559–601, July 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0523-y`.

Chouly:2018:UNA

[CMR18] Franz Chouly, Rabii Mlika, and Yves Renard. An unbiased Nitsche's approximation of the frictional contact between two elastic structures. *Numerische Mathematik*, 139(3):593–631, July 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-018-0950-x`.

Clason:2019:BLI

[CN19] Christian Clason and Vu Huu Nhu. Bouligand–Landweber iteration for a non-smooth ill-posed problem. *Numerische Mathematik*, 142(4):789–832, August 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-019-01038-6`.

Canuto:2017:COA

[CNSV17] Claudio Canuto, Ricardo H. Nochetto, Rob Stevenson, and Marco Verani. Convergence and optimality of **hp**-AFEM. *Numerische Mathematik*, 135(4):1073–1119, April 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s00211-016-0826-x`; `http://link.springer.com/article/10.1007/s00211-016-0826-x`.

Chen:2012:OMM

[CNX12] Long Chen, Ricardo H. Nochetto, and Jinchao Xu. Optimal multilevel methods for graded bisection grids. *Numerische Mathematik*, 120(1):1–34, January 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=1&spage=1`.

Cherfils:2014:NAC

[CP14] Laurence Cherfils and Madalina Petcu. A numerical analysis of the Cahn–Hilliard equation with non-permeable walls. *Numerische Mathematik*, 128(3):517–549, November 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-014-0618-0`.

Carstensen:2018:LOD

[CP18] Carsten Carstensen and Sophie Puttkammer. A low-order discontinuous Petrov–Galerkin method for the Stokes equations. *Numerische Mathematik*, 140(1):1–34, September 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0965-3.

Chambolle:2019:TRT

[CP19] Antonin Chambolle and Thomas Pock. Total roto-translational variation. *Numerische Mathematik*, 142(3):611–666, July 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01026-w.

Carstensen:2017:CNA

[CPB17] Carsten Carstensen, Eun-Jae Park, and Philipp Bringmann. Convergence of natural adaptive least squares finite element methods. *Numerische Mathematik*, 136(4):1097–1115, August 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Carstensen:2013:OAN

[CPR13] Carsten Carstensen, Daniel Peterseim, and Hella Rabus. Optimal adaptive nonconforming FEM for the Stokes problem. *Numerische Mathematik*, 123(2):291–308, February 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0490-8.

Carstensen:2016:NDG

[CPS16] Carsten Carstensen, Daniel Peterseim, and Andreas Schröder. The norm of a discretized gradient in $\boldsymbol{H}(\mathrm{div})^*$ for a posteriori finite element error analysis. *Numerische Mathematik*, 132(3):519–539, March 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0728-3.

Chen:2016:MWR

[CQR16] Peng Chen, Alfio Quarteroni, and Gianluigi Rozza. Multilevel and weighted reduced basis method for stochastic optimal control problems constrained by Stokes equations. *Numerische Mathematik*, 133(1):67–102, May 2016. CODEN NUMMA7. ISSN

0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0743-4.

Cohen:2012:CNS

[CR12] David Cohen and Xavier Raynaud. Convergent numerical schemes for the compressible hyperelastic rod wave equation. *Numerische Mathematik*, 122(1):1–59, September 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=1&spage=1.

Carstensen:2016:NNF

[CRS16] C. Carstensen, B. D. Reddy, and M. Schedensack. A natural nonconforming FEM for the Bingham flow problem is quasi-optimal. *Numerische Mathematik*, 133(1):37–66, May 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0738-1.

Cohen:2012:CAT

[CS12] David Cohen and Magdalena Sigg. Convergence analysis of trigonometric methods for stiff second-order stochastic differential equations. *Numerische Mathematik*, 121(1):1–29, May 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=1&spage=1.

Chen:2017:RBP

[CS17] Huangxin Chen and Shuyu Sun. A residual-based a posteriori error estimator for single-phase Darcy flow in fractured porous media. *Numerische Mathematik*, 136(3):805–839, July 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Carstensen:2016:OAF

[CSW16] Carsten Carstensen, Andreas Schröder, and Sebastian Wiedemann. An optimal adaptive finite element method for elastoplasticity. *Numerische Mathematik*, 132(1):131–154, January 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0714-9.

Cox:2013:PHC

[CvN13] Sonja Cox and Jan van Neerven. Pathwise Hölder convergence of the implicit-linear Euler scheme for semi-linear SPDEs with multiplicative noise. *Numerische Mathematik*, 125(2):259–345, October 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0538-4.

Chen:2012:MFE

[CW12] Wenbin Chen and Yanqiu Wang. A mixed finite element method for thin film epitaxy. *Numerische Mathematik*, 122(4):771–793, December 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0473-9.

Chandler-Wilde:2015:HFB

[CWHLT15] S. N. Chandler-Wilde, D. P. Hewett, S. Langdon, and A. Twigger. A high frequency boundary element method for scattering by a class of nonconvex obstacles. *Numerische Mathematik*, 129 (4):647–689, April 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0648-7.

Chen:2010:CQO

[CXH10] Huangxin Chen, Xuejun Xu, and Ronald H. W. Hoppe. Convergence and quasi-optimality of adaptive nonconforming finite element methods for some nonsymmetric and indefinite problems. *Numerische Mathematik*, 116(3):383–419, September 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=3&spage=383.

Dalik:2010:ADD

[Dal10] Josef Dalík. Averaging of directional derivatives in vertices of nonobtuse regular triangulations. *Numerische Mathematik*, 116(4):619–644, October 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=4&spage=619.

Deckers:2011:GEP

[DBV11] K. Deckers, A. Bultheel, and J. Van Deun. A generalized eigenvalue problem for quasi-orthogonal rational functions. *Numerische Mathematik*, 117(3):463–506, March 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=3&spage=463.

Dhia:2018:MRF

[DCC18] Anne-Sophie Bonnet-Ben Dhia, Camille Carvalho, and Patrick Ciarlet, Jr. Mesh requirements for the finite element approximation of problems with sign-changing coefficients. *Numerische Mathematik*, 138(4):801–838, April 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0923-5.

deCamargo:2017:SEF

[dCM17] André Pierro de Camargo and Walter F. Mascarenhas. The stability of extended Floater–Hormann interpolants. *Numerische Mathematik*, 136(1):287–313, May 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

deCastro:2016:FFR

[dCMT16] Pedro Machado Manhães de Castro, Quentin Mérigot, and Boris Thibert. Far-field reflector problem and intersection of paraboloids. *Numerische Mathematik*, 134(2):389–411, October 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0780-z; http://link.springer.com/article/10.1007/s00211-015-0780-z.

DeLosReyes:2016:EEO

[DD16] Juan Carlos De Los Reyes and Vili Dhamo. Error estimates for optimal control problems of a class of quasilinear equations arising in variable viscosity fluid flow. *Numerische Mathematik*, 132(4):691–720, April 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0737-2.

Droniou:2016:UTC

[DE16] Jérôme Droniou and Robert Eymard. Uniform-in-time convergence of numerical methods for non-linear degenerate parabolic equations. *Numerische Mathematik*, 132(4):721–766, April 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0733-6.

Demlow:2016:QOA

[Dem16] Alan Demlow. Quasi-optimality of adaptive finite element methods for controlling local energy errors. *Numerische Mathematik*, 134(1):27–60, September 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0774-x; http://link.springer.com/article/10.1007/s00211-015-0774-x.

Demlow:2017:CQO

[Dem17] Alan Demlow. Convergence and quasi-optimality of adaptive finite element methods for harmonic forms. *Numerische Mathematik*, 136(4):941–971, August 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Deckelnick:2011:NAI

[DES11] Klaus Deckelnick, Charles M. Elliott, and Vanessa Styles. Numerical analysis of an inverse problem for the eikonal equation. *Numerische Mathematik*, 119(2):245–269, October 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=2&spage=245.

Dang:2016:CEM

[DFL16] Duy-Minh Dang, Peter A. Forsyth, and Yuying Li. Convergence of the embedded mean-variance optimal points with discrete sampling. *Numerische Mathematik*, 132(2):271–302, February 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0723-8.

Demoures:2015:DVL

[DGBL+15] F. Demoures, F. Gay-Balmaz, S. Leyendecker, S. Ober-Blöbaum, T. S. Ratiu, and Y. Weinand. Discrete variational Lie group formulation of geometrically exact beam dynamics. *Numerische Mathematik*, 130(1):73–123, May 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0659-4.

deGournay:2019:DRS

[dGKL19] Frédéric de Gournay, Jonas Kahn, and Léo Lebrat. Differentiation and regularity of semi-discrete optimal transport with respect to the parameters of the discrete measure. *Numerische Mathematik*, 141(2):429–453, February 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-1000-4.

Dryja:2015:AFD

[DGS15] Maksymilian Dryja, Juan Galvis, and Marcus Sarkis. The analysis of a FETI–DP preconditioner for a full DG discretization of elliptic problems in two dimensions. *Numerische Mathematik*, 131(4):737–770, December 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0705-x.

Dick:2017:CIP

[DGSY17] Josef Dick, Takashi Goda, Kosuke Suzuki, and Takehito Yoshiki. Construction of interlaced polynomial lattice rules for infinitely differentiable functions. *Numerische Mathematik*, 137(2):257–288, October 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0882-x.

Drouet:2017:ALA

[DH17] Guillaume Drouet and Patrick Hild. An accurate local average contact method for nonmatching meshes. *Numerische Mathematik*, 136(2):467–502, June 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Dutta:2016:CFD

[DHKR16] Rajib Dutta, Helge Holden, Ujjwal Koley, and Nils Henrik Risebro. Convergence of finite difference schemes for the Benjamin–Ono equation. *Numerische Mathematik*, 134(2):249–274, October 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0778-6; http://link.springer.com/article/10.1007/s00211-015-0778-6.

Droniou:2019:NAT

[DHM19] Jérôme Droniou, Julian Hennicker, and Roland Masson. Numerical analysis of a two-phase flow discrete fracture matrix model. *Numerische Mathematik*, 141(1):21–62, January 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0994-y.

deHoop:2015:AML

[dHQS15] Maarten V. de Hoop, Lingyun Qiu, and Otmar Scherzer. An analysis of a multi-level projected steepest descent iteration for nonlinear inverse problems in Banach spaces subject to stability constraints. *Numerische Mathematik*, 129(1):127–148, January 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0629-x.

Dolz:2017:CRM

[DHS17] J. Dölz, H. Harbrecht, and Ch. Schwab. Covariance regularity and $\mathcal{H}$-matrix approximation for rough random fields. *Numerische Mathematik*, 135(4):1045–1071, April 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0825-y; http://link.springer.com/article/10.1007/s00211-016-0825-y.

Dick:2012:RWR

[Dic12] Josef Dick. Random weights, robust lattice rules and the geometry of the cbc$r$c algorithm. *Numerische Mathematik*, 122(3):443–467, November 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=3&spage=443.

Dopico:2011:PTL

[DK11] Froilán M. Dopico and Plamen Koev. Perturbation theory for the LDU factorization and accurate computations for diagonally dominant matrices. *Numerische Mathematik*, 119(2):337–371, October 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=2&spage=337.

Demlow:2016:MNP

[DK16a] Alan Demlow and Natalia Kopteva. Maximum-norm a posteriori error estimates for singularly perturbed elliptic reaction-diffusion problems. *Numerische Mathematik*, 133(4):707–742, August 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0763-0; http://link.springer.com/article/10.1007/s00211-015-0763-0.

Dryja:2016:MPN

[DK16b] Maksymilian Dryja and Piotr Krzyzanowski. A massively parallel nonoverlapping additive Schwarz method for discontinuous Galerkin discretization of elliptic problems. *Numerische Mathematik*, 132(2):347–367, February 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0718-5; http://link.springer.com/content/pdf/10.1007/s00211-015-0718-5.pdf.

Diening:2013:CHP

[DKS13] Lars Diening, Christian Kreuzer, and Sebastian Schwarzacher. Convex hull property and maximum principle for finite element minimisers of general convex functionals. *Numerische Mathematik*, 124(4):685–700, August 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0527-7.

Dieci:2011:SMD

[DL11] Luca Dieci and Luciano Lopez. Sliding motion on discontinuity surfaces of high co-dimension. A construction for selecting a Filippov vector field. *Numerische Mathematik*, 117(4):779–811, April 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=4&spage=779.

Droniou:2015:GSL

[DL15] Jérôme Droniou and Bishnu P. Lamichhane. Gradient schemes for linear and non-linear elasticity equations. *Numerische Mathematik*, 129(2):251–277, February 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0636-y.

Dopico:2018:BKL

[DLPV18] Froilán M. Dopico, Piers W. Lawrence, Javier Pérez, and Paul Van Dooren. Block Kronecker linearizations of matrix polynomials and their backward errors. *Numerische Mathematik*, 140(2): 373–426, October 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-018-0969-z`.

Duan:2012:CEG

[DLT12] Huoyuan Duan, Ping Lin, and Roger C. E. Tan. C^0 elements for generalized indefinite Maxwell equations. *Numerische Mathematik*, 122(1):61–99, September 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=1&spage=61`.

Duan:2013:ACF

[DLT13] Huoyuan Duan, Ping Lin, and Roger C. E. Tan. Analysis of a continuous finite element method for $H(\mathrm{curl}, \mathrm{div})$-elliptic interface problem. *Numerische Mathematik*, 123(4):671–707, April 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-012-0500-x`.

Digne:2014:NAD

[DM14] Julie Digne and Jean-Michel Morel. Numerical analysis of differential operators on raw point clouds. *Numerische Mathematik*, 127(2):255–289, June 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0584-y`.

Dedner:2016:ADG

[DM16] Andreas Dedner and Pravin Madhavan. Adaptive discontinuous Galerkin methods on surfaces. *Numerische Mathematik*, 132(2): 369–398, February 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-015-0719-4`.

Dereich:2019:GMA

[DMG19] Steffen Dereich and Thomas Müller-Gronbach. General multilevel adaptations for stochastic approximation algorithms of Robbins–Monro and Polyak–Ruppert type. *Numerische Mathematik*, 142 (2):279–328, June 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-019-01024-y`.

Drineas:2011:FLS

[DMMS11] Petros Drineas, Michael W. Mahoney, S. Muthukrishnan, and Tamás Sarlós. Faster least squares approximation. *Numerische Mathematik*, 117(2):219–249, February 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=2&spage=219.

DeBonis:2012:GQR

[DMN12] M. C. De Bonis, G. Mastroianni, and I. Notarangelo. Gaussian quadrature rules with exponential weights on $(-1, 1)$. *Numerische Mathematik*, 120(3):433–464, March 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=3&spage=433.

Dick:2014:LRN

[DNP14] Josef Dick, Dirk Nuyens, and Friedrich Pillichshammer. Lattice rules for nonperiodic smooth integrands. *Numerische Mathematik*, 126(2):259–291, February 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0566-0.

Discacciati:2017:CMF

[DO17] Marco Discacciati and Ricardo Oyarzúa. A conforming mixed finite element method for the Navier–Stokes/Darcy coupled problem. *Numerische Mathematik*, 135(2):571–606, February 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0811-4; http://link.springer.com/article/10.1007/s00211-016-0811-4.

Dopico:2016:SEC

[DP16] Froilán M. Dopico and Kenet Pomés. Structured eigenvalue condition numbers for parameterized quasiseparable matrices. *Numerische Mathematik*, 134(3):473–512, November 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0779-5; http://link.springer.com/article/10.1007/s00211-015-0779-5.

Driver:2012:IZG

[Dri12] Kathy Driver. Interlacing of zeros of Gegenbauer polynomials of non-consecutive degree from different sequences. *Numerische Mathematik*, 120(1):35–44, January 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=1&spage=35.

Dijkema:2010:SLT

[DS10] Tammo Jan Dijkema and Rob Stevenson. A sparse Laplacian in tensor product wavelet coordinates. *Numerische Mathematik*, 115(3):433–449, May 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=3&spage=433.

Demlow:2011:CQO

[DS11] Alan Demlow and Rob Stevenson. Convergence and quasi-optimality of an adaptive finite element method for controlling L_2 errors. *Numerische Mathematik*, 117(2):185–218, February 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=2&spage=185.

Davydov:2016:EBK

[DS16] Oleg Davydov and Robert Schaback. Error bounds for kernel-based numerical differentiation. *Numerische Mathematik*, 132(2):243–269, February 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0722-9.

Davydov:2018:MND

[DS18a] Oleg Davydov and Robert Schaback. Minimal numerical differentiation formulas. *Numerische Mathematik*, 140(3):555–592, November 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0973-3.

delaCalleYsern:2018:MSP

[dS18b] B. de la Calle Ysern and M. M. Spalević. Modified Stieltjes polynomials and Gauss–Kronrod quadrature rules. *Numerische Mathematik*, 138(1):1–35, January 2018. CODEN NUMMA7. ISSN

0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0901-y.

Deckelnick:2018:SEA

[DS18c] Klaus Deckelnick and Vanessa Styles. Stability and error analysis for a diffuse interface approach to an advection–diffusion equation on a moving surface. *Numerische Mathematik*, 139(3):709–741, July 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0946-6; https://link.springer.com/content/pdf/10.1007/s00211-018-0946-6.pdf.

Du:2016:RBP

[DSX16] Shaohong Du, Shuyu Sun, and Xiaoping Xie. Residual-based a posteriori error estimation for multipoint flux mixed finite element methods. *Numerische Mathematik*, 134(1):197–222, September 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0770-1; http://link.springer.com/article/10.1007/s00211-015-0770-1.

Dione:2015:PFE

[DU15] Ibrahima Dione and José M. Urquiza. Penalty: finite element approximation of Stokes equations with slip boundary conditions. *Numerische Mathematik*, 129(3):587–610, March 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0646-9.

DeMicheli:2011:NRL

[DV11] Enrico De Micheli and Giovanni A. Viano. Numerical recovery of location and residue of poles of meromorphic functions. *Numerische Mathematik*, 117(1):147–183, January 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=1&spage=147.

daVeiga:2016:CVE

[dVBMR16] L. Beirão da Veiga, F. Brezzi, L. D. Marini, and A. Russo. $H(\mathrm{div})$ and $H(\mathbf{curl})$-conforming virtual element methods. *Numerische Mathematik*, 133(2):303–332, June 2016. CODEN NUMMA7.

ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0746-1.

daVeiga:2011:SEH

[dVBRS11] L. Beirão da Veiga, A. Buffa, J. Rivas, and G. Sangalli. Some estimates for *h-p-k*-refinement in Isogeometric Analysis. *Numerische Mathematik*, 118(2):271–305, June 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=2&spage=271.

daVeiga:2018:ECH

[dVCMR18] L. Beirão da Veiga, A. Chernov, L. Mascotto, and A. Russo. Exponential convergence of the *hp* virtual element method in presence of corner singularities. *Numerische Mathematik*, 138(3):581–613, March 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0921-7; https://link.springer.com/content/pdf/10.1007/s00211-017-0921-7.pdf.

daVeiga:2011:MDR

[dVM11] L. Beirão da Veiga and D. Mora. A mimetic discretization of the Reissner–Mindlin plate bending problem. *Numerische Mathematik*, 117(3):425–462, March 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=3&spage=425.

daVeiga:2019:PEE

[dVMM19] L. Beirão da Veiga, G. Manzini, and L. Mascotto. A posteriori error estimation and adaptivity in *hp* virtual elements. *Numerische Mathematik*, 143(1):139–175, September 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01054-6; https://link.springer.com/content/pdf/10.1007/s00211-019-01054-6.pdf.

daVeiga:2017:VEM

[dVMRR17] Lourenço Beirão da Veiga, David Mora, Gonzalo Rivera, and Rodolfo Rodríguez. A virtual element method for the acoustic vibration problem. *Numerische Mathematik*, 136(3):725–763, July

2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Diegel:2017:CAE

[DWWW17] Amanda E. Diegel, Cheng Wang, Xiaoming Wang, and Steven M. Wise. Convergence analysis and error estimates for a second order accurate finite element method for the Cahn–Hilliard–Navier–Stokes system. *Numerische Mathematik*, 137(3):495–534, November 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0887-5.

Egger:2019:SPA

[Egg19] H. Egger. Structure preserving approximation of dissipative evolution problems. *Numerische Mathematik*, 143(1):85–106, September 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01050-w.

Elfverson:2015:MMP

[EGH15] Daniel Elfverson, Victor Ginting, and Patrick Henning. On multiscale methods in Petrov–Galerkin formulation. *Numerische Mathematik*, 131(4):643–682, December 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0703-z.

Estatico:2017:CGL

[EGLTP17] Claudio Estatico, Serge Gratton, Flavia Lenti, and David Titley-Peloquin. A conjugate gradient like method for p-norm minimization in functional spaces. *Numerische Mathematik*, 137(4):895–922, December 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0893-7.

Espig:2012:RNM

[EH12] Mike Espig and Wolfgang Hackbusch. A regularized Newton method for the efficient approximation of tensors represented in the canonical tensor format. *Numerische Mathematik*, 122(3):489–525, November 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=3&spage=489.

Evans:2013:ETI

[EH13] John A. Evans and Thomas J. R. Hughes. Explicit trace inequalities for isogeometric analysis and parametric hexahedral finite elements. *Numerische Mathematik*, 123(2):259–290, February 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0484-6.

Eisenmann:2018:CAD

[EH18] Monika Eisenmann and Eskil Hansen. Convergence analysis of domain decomposition based time integrators for degenerate parabolic equations. *Numerische Mathematik*, 140 (4):913–938, December 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0985-z; https://link.springer.com/content/pdf/10.1007/s00211-018-0985-z.pdf.

Espig:2012:VCS

[EHRS12] Mike Espig, Wolfgang Hackbusch, Thorsten Rohwedder, and Reinhold Schneider. Variational calculus with sums of elementary tensors of fixed rank. *Numerische Mathematik*, 122 (3):469–488, November 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=3&spage=469.

Egger:2018:DWS

[EK18] H. Egger and T. Kugler. Damped wave systems on networks: exponential stability and uniform approximations. *Numerische Mathematik*, 138(4):839–867, April 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0924-4.

Erb:2016:BLI

[EKAB16] Wolfgang Erb, Christian Kaethner, Mandy Ahlborg, and Thorsten M. Buzug. Bivariate Lagrange interpolation at the node points of non-degenerate Lissajous curves. *Numerische Mathematik*, 133(4):685–705, August 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0762-1; http://link.springer.com/article/10.1007/s00211-015-0762-1.

Ekeland:2010:ACS

[EMB10] Ivar Ekeland and Santiago Moreno-Bromberg. An algorithm for computing solutions of variational problems with global convexity constraints. *Numerische Mathematik*, 115 (1):45–69, March 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=1&spage=45.

Eikeland:2019:OSM

[EMR19] Erik Eikeland, Leszek Marcinkowski, and Talal Rahman. Overlapping Schwarz methods with adaptive coarse spaces for multiscale problems in 3D. *Numerische Mathematik*, 142(1):103–128, May 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-1008-9; https://link.springer.com/content/pdf/10.1007/s00211-018-1008-9.pdf.

Engstrom:2014:SAQ

[Eng14] Christian Engström. Spectral approximation of quadratic operator polynomials arising in photonic band structure calculations. *Numerische Mathematik*, 126(3):413–440, March 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0568-y.

Ecevit:2017:FAG

[EÖ17] Fatih Ecevit and Hasan Çagan Özen. Frequency-adapted Galerkin boundary element methods for convex scattering problems. *Numerische Mathematik*, 135(1):27–71, January 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0800-7; http://link.springer.com/article/10.1007/s00211-016-0800-7.

Erath:2017:NSC

[EOS17] Christoph Erath, Günther Of, and Francisco-Javier Sayas. A non-symmetric coupling of the finite volume method and the boundary element method. *Numerische Mathematik*, 135(3):895–922, March 2017. CODEN NUMMA7. ISSN 0029-599X (print),

0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0820-3; http://link.springer.com/article/10.1007/s00211-016-0820-3.

Eigel:2017:ASG

[EPS17] Martin Eigel, Max Pfeffer, and Reinhold Schneider. Adaptive stochastic Galerkin FEM with hierarchical tensor representations. *Numerische Mathematik*, 136(3):765–803, July 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Elliott:2015:ESF

[ER15] Charles M. Elliott and Thomas Ranner. Evolving surface finite element method for the Cahn–Hilliard equation. *Numerische Mathematik*, 129(3):483–534, March 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0644-y.

Egger:2018:SCP

[ER18] Herbert Egger and Bogdan Radu. Super-convergence and postprocessing for mixed finite element approximations of the wave equation. *Numerische Mathematik*, 140(2):427–447, October 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0966-2.

Erath:2015:NPE

[Era15] Christoph Erath. A nonconforming a posteriori estimator for the coupling of cell-centered finite volume and boundary element methods. *Numerische Mathematik*, 131(3):425–451, November 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0694-1.

Ervedoza:2015:TTO

[EZ15] Sylvain Ervedoza and Enrique Zuazua. Transmutation techniques and observability for time-discrete approximation schemes of conservative systems. *Numerische Mathematik*, 130(3):425–466, July 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0668-3.

Fernandez:2013:IDC

[Fer13a] Miguel A. Fernández. Incremental displacement-correction schemes for incompressible fluid-structure interaction. *Nu-*

merische Mathematik, 123(1):21–65, January 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0481-9.

Ferretti:2013:RBS

[Fer13b] Roberto Ferretti. On the relationship between Semi–Lagrangian and Lagrange–Galerkin schemes. *Numerische Mathematik*, 124 (1):31–56, May 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0505-5.

Feischl:2015:SSN

[FFKP15] M. Feischl, T. Führer, M. Karkulik, and D. Praetorius. Stability of symmetric and nonsymmetric FEM–BEM couplings for nonlinear elasticity problems. *Numerische Mathematik*, 130(2):199–223, June 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0662-9.

Feischl:2016:ABE

[FGH+16] Michael Feischl, Gregor Gantner, Alexander Haberl, Dirk Praetorius, and Thomas Führer. Adaptive boundary element methods for optimal convergence of point errors. *Numerische Mathematik*, 132(3):541–567, March 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0727-4.

Feischl:2017:OCA

[FGHP17] Michael Feischl, Gregor Gantner, Alexander Haberl, and Dirk Praetorius. Optimal convergence for adaptive IGA boundary element methods for weakly-singular integral equations. *Numerische Mathematik*, 136(1):147–182, May 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/content/pdf/10.1007/s00211-016-0836-8.pdf.

Fiebach:2014:UGB

[FGL14] André Fiebach, Annegret Glitzky, and Alexander Linke. Uniform global bounds for solutions of an implicit Voronoi finite volume method for reaction–diffusion problems. *Numerische Mathematik*, 128(1):31–72, September 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0604-6.

Faou:2010:BNFa

[FGP10a] Erwan Faou, Benoît Grébert, and Eric Paturel. Birkhoff normal form for splitting methods applied to semilinear Hamiltonian PDEs. Part I. Finite-dimensional discretization. *Numerische Mathematik*, 114(3):429–458, January 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=114&issue=3&spage=429.

Faou:2010:BNFb

[FGP10b] Erwan Faou, Benoît Grébert, and Eric Paturel. Birkhoff normal form for splitting methods applied to semilinear Hamiltonian PDEs. Part II. Abstract splitting. *Numerische Mathematik*, 114(3):459–490, January 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=114&issue=3&spage=459.

Filbet:2017:FVS

[FH17] Francis Filbet and Maxime Herda. A finite volume scheme for boundary-driven convection–diffusion equations with relative entropy structure. *Numerische Mathematik*, 137(3):535–577, November 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0885-7.

Fuselier:2014:KBQ

[FHN+14] E. Fuselier, T. Hangelbroek, F. J. Narcowich, J. D. Ward, and G. B. Wright. Kernel based quadrature on spheres and other homogeneous spaces. *Numerische Mathematik*, 127(1):57–92, May 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0581-1.

Fuhrer:2019:ABI

[FHPS19] Thomas Führer, Alexander Haberl, Dirk Praetorius, and Stefan Schimanko. Adaptive BEM with inexact PCG solver yields almost optimal computational costs. *Numerische Mathematik*, 141(4):967–1008, April 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-1011-1; https://link.springer.com/content/pdf/10.1007/s00211-018-1011-1.pdf.

Feireisl:2016:CNM

[FKM16] Eduard Feireisl, Trygve Karper, and Martin Michálek. Convergence of a numerical method for the compressible Navier–Stokes system on general domains. *Numerische Mathematik*, 134(4):667–704, December 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0786-6; http://link.springer.com/article/10.1007/s00211-015-0786-6.

Feistauer:2011:AST

[FKNP11] Miloslav Feistauer, Václav Kucera, Karel Najzar, and Jaroslava Prokopová. Analysis of space–time discontinuous Galerkin method for nonlinear convection-diffusion problems. *Numerische Mathematik*, 117(2):251–288, February 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=2&spage=251.

Feischl:2018:FRF

[FKS18] Michael Feischl, Frances Y. Kuo, and Ian H. Sloan. Fast random field generation with H-matrices. *Numerische Mathematik*, 140(3):639–676, November 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0974-2. See correction [FKS19].

Feischl:2019:CFR

[FKS19] Michael Feischl, Frances Y. Kuo, and Ian H. Sloan. Correction to: Fast random field generation with H-matrices. *Numerische Mathematik*, 142(3):787, July 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01033-x; https://link.springer.com/content/pdf/10.1007/s00211-019-01033-x.pdf. See [FKS18].

Fermo:2015:NMB

[FL15] Luisa Fermo and Concetta Laurita. A Nyström method for a boundary integral equation related to the Dirichlet problem on domains with corners. *Numerische Mathematik*, 130(1):35–71, May 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-

3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0657-6.

Ferraz-Leite:2012:NQE

[FLMP12] Samuel Ferraz-Leite, Jens Markus Melenk, and Dirk Praetorius. Numerical quadratic energy minimization bound to convex constraints in thin-film micromagnetics. *Numerische Mathematik*, 122(1):101–131, September 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=1&spage=101.

Ferraz-Leite:2010:CSA

[FLOP10] S. Ferraz-Leite, C. Ortner, and D. Praetorius. Convergence of simple adaptive Galerkin schemes based on h–$h/2$ error estimators. *Numerische Mathematik*, 116(2):291–316, August 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=2&spage=291.

Fornasier:2010:COD

[FLS10] Massimo Fornasier, Andreas Langer, and Carola-Bibiane Schönlieb. A convergent overlapping domain decomposition method for total variation minimization. *Numerische Mathematik*, 116(4):645–685, October 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=4&spage=645.

Friedland:2019:GCN

[FLZ19] Shmuel Friedland, Lek-Heng Lim, and Jinjie Zhang. Grothendieck constant is norm of Strassen matrix multiplication tensor. *Numerische Mathematik*, 143(4):905–922, December 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01070-6.

Faustmann:2018:LCB

[FM18] Markus Faustmann and Jens Markus Melenk. Local convergence of the boundary element method on polyhedral domains. *Numerische Mathematik*, 140(3):593–637, November 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0975-1; https://link.springer.com/content/pdf/10.1007/s00211-018-0975-1.pdf.

Faustmann:2015:MAI

[FMP15] Markus Faustmann, Jens Markus Melenk, and Dirk Praetorius. $\mathcal{H}$-matrix approximability of the inverses of FEM matrices. *Numerische Mathematik*, 131(4):615–642, December 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0706-9.

Falco:2012:PGD

[FN12] Antonio Falcó and Anthony Nouy. Proper generalized decomposition for nonlinear convex problems in tensor Banach spaces. *Numerische Mathematik*, 121(3):503–530, July 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=3&spage=503.

Ferreira:2012:SEU

[FPD12] Carla Ferreira, Beresford Parlett, and Froilán M. Dopico. Sensitivity of eigenvalues of an unsymmetric tridiagonal matrix. *Numerische Mathematik*, 122(3):527–555, November 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=3&spage=527.

Fornberg:2019:IGL

[FR19] Bengt Fornberg and Jonah A. Reeger. An improved Gregory-like method for 1-D quadrature. *Numerische Mathematik*, 141(1):1–19, January 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0992-0.

Fritz:2015:NRD

[Fri15] Hans Fritz. Numerical Ricci–DeTurck flow. *Numerische Mathematik*, 131(2):241–271, October 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0690-5.

Froese:2018:MFD

[Fro18] Brittany D. Froese. Meshfree finite difference approximations for functions of the eigenvalues of the Hessian. *Numerische Mathematik*, 138(1):75–99, January 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0898-2.

Faou:2014:APS

[FS14] Erwan Faou and Katharina Schratz. Asymptotic preserving schemes for the Klein–Gordon equation in the non-relativistic limit regime. *Numerische Mathematik*, 126(3):441–469, March 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0567-z.

Fathi:2017:IDP

[FS17] M. Fathi and G. Stoltz. Improving dynamical properties of metropolized discretizations of overdamped Langevin dynamics. *Numerische Mathematik*, 136(2):545–602, June 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Ferre:2019:EEE

[FS19] Grégoire Ferré and Gabriel Stoltz. Error estimates on ergodic properties of discretized Feynman–Kac semigroups. *Numerische Mathematik*, 143(2):261–313, October 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01059-1.

Fukushima:2010:FCI

[Fuk10] Toshio Fukushima. Fast computation of incomplete elliptic integral of first kind by half argument transformation. *Numerische Mathematik*, 116(4):687–719, October 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=4&spage=687.

Fukushima:2013:PFC

[Fuk13] Toshio Fukushima. Precise and fast computation of Jacobian elliptic functions by conditional duplication. *Numerische Mathematik*, 123(4):585–605, April 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0498-0.

Fasshauer:2011:RKG

[FY11] Gregory E. Fasshauer and Qi Ye. Reproducing kernels of generalized Sobolev spaces via a Green function approach with distributional operators. *Numerische Mathematik*, 119 (3):585–611, November 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=3&spage=585.

Greenhalgh:2013:PDP

[GAB13] Scott Greenhalgh, Vincent Acary, and Bernard Brogliato. On preserving dissipativity properties of linear complementarity dynamical systems with the θ-method. *Numerische Mathematik*, 125(4): 601–637, December 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0553-5.

Gallistl:2015:OAF

[Gal15] Dietmar Gallistl. An optimal adaptive FEM for eigenvalue clusters. *Numerische Mathematik*, 130(3):467–496, July 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0671-8.

Gantumur:2013:ABE

[Gan13] Tsogtgerel Gantumur. Adaptive boundary element methods with convergence rates. *Numerische Mathematik*, 124(3):471–516, July 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0524-x.

Gauckler:2018:SMZ

[Gau18] Ludwig Gauckler. On a splitting method for the Zakharov system. *Numerische Mathematik*, 139(2):349–379, June 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0942-2.

Gray:2017:DTA

[GEEF17] W. Steven Gray, Luis A. Duffaut Espinosa, and Kurusch Ebrahimi-Fard. Discrete-time approximations of Fliess operators. *Numerische Mathematik*, 137(1):35–62, September 2017.

CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Giani:2012:AFE

[GG12] S. Giani and I. G. Graham. Adaptive finite element methods for computing band gaps in photonic crystals. *Numerische Mathematik*, 121(1):31–64, May 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=1&spage=31.

Guillen-Gonzalez:2011:EEL

[GGGS11] Francisco Guillén-González and Juan Vicente Gutiérrez-Santacreu. Error estimates of a linear decoupled Euler–FEM scheme for a mass diffusion model. *Numerische Mathematik*, 117(2):333–371, February 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=2&spage=333.

Guillen-Gonzalez:2019:CMA

[GGGS19] Francisco Guillén-González and Juan Vicente Gutiérrez-Santacreu. From a cell model with active motion to a Hele–Shaw-like system: a numerical approach. *Numerische Mathematik*, 143(1):107–137, September 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01053-7.

Gilbert:2019:AQM

[GGK+19] A. D. Gilbert, I. G. Graham, F. Y. Kuo, R. Scheichl, and I. H. Sloan. Analysis of quasi-Monte Carlo methods for elliptic eigenvalue problems with stochastic coefficients. *Numerische Mathematik*, 142(4):863–915, August 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01046-6.

Gatica:2014:APB

[GGM14] Gabriel N. Gatica, Luis F. Gatica, and Antonio Márquez. Analysis of a pseudostress-based mixed finite element method for the Brinkman model of porous media flow. *Numerische Mathematik*, 126(4):635–677, April 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0577-x.

Giani:2016:REE

[GGMO16] Stefano Giani, Luka Grubisić, Agnieszka Miedlar, and Jeffrey S. Ovall. Robust error estimates for approximations of non-self-adjoint eigenvalue problems. *Numerische Mathematik*, 133(3): 471–495, July 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0752-3; http://link.springer.com/article/10.1007/s00211-015-0752-3.

Guillen-Gonzalez:2015:AHS

[GGRG15] F. Guillén-González and J. R. Rodríguez-Galván. Analysis of the hydrostatic Stokes problem and finite-element approximation in unstructured meshes. *Numerische Mathematik*, 130(2):225–256, June 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0663-8.

Gander:2015:AGH

[GGS15] M. J. Gander, I. G. Graham, and E. A. Spence. Applying GMRES to the Helmholtz equation with shifted Laplacian preconditioning: what is the largest shift for which wavenumber-independent convergence is guaranteed? *Numerische Mathematik*, 131(3): 567–614, November 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0700-2.

Georgieva:2014:IHF

[GH14a] Irina Georgieva and Clemens Hofreither. Interpolation of harmonic functions based on Radon projections. *Numerische Mathematik*, 127(3):423–445, July 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0592-y.

Gradinaru:2014:CSW

[GH14b] Vasile Gradinaru and George A. Hagedorn. Convergence of a semiclassical wavepacket based time-splitting for the Schrödinger equation. *Numerische Mathematik*, 126(1):53–73, January 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0560-6.

Gallistl:2017:SRR

[GHP17] D. Gallistl, P. Huber, and D. Peterseim. On the stability of the Rayleigh–Ritz method for eigenvalues. *Numerische Mathematik*, 137(2):339–351, October 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0876-8.

Gatica:2012:RHB

[GHS12] Gabriel N. Gatica, George C. Hsiao, and Francisco-Javier Sayas. Relaxing the hypotheses of Bielak–MacCamy's BEM-FEM coupling. *Numerische Mathematik*, 120(3):465–487, March 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=3&spage=465.

Gittelson:2014:AWM

[Git14] Claude Jeffrey Gittelson. Adaptive wavelet methods for elliptic partial differential equations with random operators. *Numerische Mathematik*, 126(3):471–513, March 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0572-2.

Grasedyck:2019:SAT

[GK19a] Lars Grasedyck and Sebastian Krämer. Stable ALS approximation in the TT-format for rank-adaptive tensor completion. *Numerische Mathematik*, 143(4):855–904, December 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01072-4.

Guerand:2019:EEF

[GK19b] Jessica Guerand and Marwa Koumaiha. Error estimates for a finite difference scheme associated with Hamilton–Jacobi equations on a junction. *Numerische Mathematik*, 142(3):525–575, July 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01043-9; https://link.springer.com/content/pdf/10.1007/s00211-019-01043-9.pdf.

Guglielmi:2015:LRD

[GKL15] Nicola Guglielmi, Daniel Kressner, and Christian Lubich. Low rank differential equations for Hamiltonian matrix nearness problems. *Numerische Mathematik*, 129(2):279–319, February 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0637-x.

Goudon:2019:DMN

[GKL19] Thierry Goudon, Stella Krell, and Giulia Lissoni. DDFV method for Navier–Stokes problem with outflow boundary conditions. *Numerische Mathematik*, 142(1):55–102, May 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-1014-y.

Graham:2015:QMC

[GKN+15] I. G. Graham, F. Y. Kuo, J. A. Nichols, R. Scheichl, and Ch. Schwab. Quasi-Monte Carlo finite element methods for elliptic PDEs with lognormal random coefficients. *Numerische Mathematik*, 131(2):329–368, October 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0689-y.

Graham:2018:CEQ

[GKN+18] Ivan G. Graham, Frances Y. Kuo, Dirk Nuyens, Rob Scheichl, and Ian H. Sloan. Circulant embedding with QMC: analysis for elliptic PDE with lognormal coefficients. *Numerische Mathematik*, 140(2):479–511, October 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0968-0; https://link.springer.com/content/pdf/10.1007/s00211-018-0968-0.pdf.

Gittelson:2013:MLM

[GKSS13] Claude J. Gittelson, Juho Könnö, Christoph Schwab, and Rolf Stenberg. The multi-level Monte Carlo finite element method for a stochastic Brinkman Problem. *Numerische Mathematik*, 125(2):347–386, October 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0537-5.

Gameiro:2011:RCS

[GL11] Marcio Gameiro and Jean-Philippe Lessard. Rigorous computation of smooth branches of equilibria for the three dimensional Cahn–Hilliard equation. *Numerische Mathematik*, 117(4):753–778, April 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=4&spage=753`.

Gao:2017:SCF

[GLS17] Huadong Gao, Buyang Li, and Weiwei Sun. Stability and convergence of fully discrete Galerkin FEMs for the nonlinear thermistor equations in a nonconvex polygon. *Numerische Mathematik*, 136 (2):383–409, June 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Gunzburger:2019:CFE

[GLW19] Max Gunzburger, Buyang Li, and Jilu Wang. Convergence of finite element solutions of stochastic partial integro-differential equations driven by white noise. *Numerische Mathematik*, 141 (4):1043–1077, April 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-019-01028-8`.

Giesselmann:2014:GEF

[GM14] Jan Giesselmann and Thomas Müller. Geometric error of finite volume schemes for conservation laws on evolving surfaces. *Numerische Mathematik*, 128(3):489–516, November 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-014-0621-5`.

Gallouet:2019:EEI

[GMN19] Thierry Gallouët, David Maltese, and Antonin Novotny. Error estimates for the implicit MAC scheme for the compressible Navier–Stokes equations. *Numerische Mathematik*, 141(2): 495–567, February 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-018-1007-x`.

Gimperlein:2018:BEM

[GMÖ+18] Heiko Gimperlein, Fabian Meyer, Ceyhun Özdemir, David Stark, and Ernst P. Stephan. Boundary elements with mesh refinements for the wave equation. *Numerische Mathematik*, 139(4):867–912, August 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-018-0954-6`.

Garoni:2014:SSM

[GMP+14] Carlo Garoni, Carla Manni, Francesca Pelosi, Stefano Serra-Capizzano, and Hendrik Speleers. On the spectrum of stiffness matrices arising from isogeometric analysis. *Numerische Mathematik*, 127(4):751–799, August 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0600-2.

Galkowski:2019:WEA

[GMS19] Jeffrey Galkowski, Eike H. Müller, and Euan A. Spence. Wavenumber-explicit analysis for the Helmholtz h-BEM: error estimates and iteration counts for the Dirichlet problem. *Numerische Mathematik*, 142(2):329–357, June 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01032-y; https://link.springer.com/content/pdf/10.1007/s00211-019-01032-y.pdf.

Gimperlein:2011:AFC

[GMSS11] Heiko Gimperlein, Matthias Maischak, Elmar Schrohe, and Ernst P. Stephan. Adaptive FE–BE coupling for strongly nonlinear transmission problems with Coulomb friction. *Numerische Mathematik*, 117(2):307–332, February 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=2&spage=307.

Gratton:2011:SRB

[GMT11] Serge Gratton, Mélodie Mouffe, and Philippe L. Toint. Stopping rules and backward error analysis for bound-constrained optimization. *Numerische Mathematik*, 119(1):163–187, September 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=1&spage=163.

Guzman:2014:SCM

[GN14] Johnny Guzmán and Michael Neilan. Symmetric and conforming mixed finite elements for plane elasticity using rational bubble functions. *Numerische Mathematik*, 126(1):153–171, January 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-

3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0557-1.

Girault:2015:MNE

[GNS15] V. Girault, R. H. Nochetto, and L. R. Scott. Max-norm estimates for Stokes and Navier–Stokes approximations in convex polyhedra. *Numerische Mathematik*, 131(4):771–822, December 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0707-8.

Graf:2011:CSD

[GP11] Manuel Gräf and Daniel Potts. On the computation of spherical designs by a new optimization approach based on fast spherical Fourier transforms. *Numerische Mathematik*, 119 (4):699–724, December 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=4&spage=699.

Gajardo:2013:SIC

[GS13] Pedro Gajardo and Alberto Seeger. Solving inverse cone-constrained eigenvalue problems. *Numerische Mathematik*, 123 (2):309–331, February 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0487-3.

Gunther:2016:MGA

[GS16] Michael Günther and Adrian Sandu. Multirate generalized additive Runge–Kutta methods. *Numerische Mathematik*, 133(3): 497–524, July 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0756-z; http://link.springer.com/article/10.1007/s00211-015-0756-z.

Garde:2017:CRM

[GS17] Henrik Garde and Stratos Staboulis. Convergence and regularization for monotonicity-based shape reconstruction in electrical impedance tomography. *Numerische Mathematik*, 135(4):1221–1251, April 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0830-1; http://link.springer.com/article/10.1007/s00211-016-0830-1.

Gil:2019:FRU

[GST19] Amparo Gil, Javier Segura, and Nico M. Temme. Fast, reliable and unrestricted iterative computation of Gauss–Hermite and Gauss–Laguerre quadratures. *Numerische Mathematik*, 143(3): 649–682, November 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-019-01066-2`.

Gustafsson:2019:EAN

[GSV19] Tom Gustafsson, Rolf Stenberg, and Juha Videman. Error analysis of Nitsche's mortar method. *Numerische Mathematik*, 142(4):973–994, August 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-019-01039-5; https://link.springer.com/content/pdf/10.1007/s00211-019-01039-5.pdf`.

Grohs:2017:SMV

[GSY17] Philipp Grohs, Markus Sprecher, and Thomas Yu. Scattered manifold-valued data approximation. *Numerische Mathematik*, 135(4):987–1010, April 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-016-0823-0; http://link.springer.com/content/pdf/10.1007/s00211-016-0823-0.pdf`.

Goda:2019:LRN

[GSY19] Takashi Goda, Kosuke Suzuki, and Takehito Yoshiki. Lattice rules in non-periodic subspaces of Sobolev spaces. *Numerische Mathematik*, 141(2):399–427, February 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-018-1003-1`.

Garvie:2014:TLF

[GT14] Marcus R. Garvie and Catalin Trenchea. A three level finite element approximation of a pattern formation model in developmental biology. *Numerische Mathematik*, 127(3):397–422, July 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0591-z`.

Gopal:2019:RCM

[GT19] Abinand Gopal and Lloyd N. Trefethen. Representation of conformal maps by rational functions. *Numerische Mathematik*, 142 (2):359–382, June 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01023-z.

Gigante:2015:AOG

[GV15] Giacomo Gigante and Christian Vergara. Analysis and optimization of the generalized Schwarz method for elliptic problems with application to fluid-structure interaction. *Numerische Mathematik*, 131(2):369–404, October 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0693-2.

Gosse:2019:SEK

[GV19] Laurent Gosse and Nicolas Vauchelet. Some examples of kinetic schemes whose diffusion limit is Il'in's exponential-fitting. *Numerische Mathematik*, 141(3):627–680, March 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-01020-8.

Girault:2014:MMF

[GVY14] Vivette Girault, Danail Vassilev, and Ivan Yotov. Mortar multiscale finite element methods for Stokes–Darcy flows. *Numerische Mathematik*, 127(1):93–165, May 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0583-z.

Gander:2019:CAP

[GW19] Martin J. Gander and Shu-Lin Wu. Convergence analysis of a periodic-like waveform relaxation method for initial-value problems via the diagonalization technique. *Numerische Mathematik*, 143(2):489–527, October 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01060-8.

Gong:2010:NAS

[GWCH10] Rongfang Gong, Ge Wang, Xiaoliang Cheng, and Weimin Han. A novel approach for studies of multispectral bioluminescence tomography. *Numerische Mathematik*, 115(4):

553–583, June 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=4&spage=553.

Guan:2014:CCS

[GWW14] Zhen Guan, Cheng Wang, and Steven M. Wise. A convergent convex splitting scheme for the periodic nonlocal Cahn–Hilliard equation. *Numerische Mathematik*, 128(2):377–406, October 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0608-2.

Grasedyck:2016:NOM

[GWX16] Lars Grasedyck, Lu Wang, and Jinchao Xu. A nearly optimal multigrid method for general unstructured grids. *Numerische Mathematik*, 134(3):637–666, November 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0785-7; http://link.springer.com/article/10.1007/s00211-015-0785-7.

Gong:2019:NHM

[GWX19] Shihua Gong, Shuonan Wu, and Jinchao Xu. New hybridized mixed methods for linear elasticity and optimal multilevel solvers. *Numerische Mathematik*, 141(2):569–604, February 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-1001-3.

Gagelman:2012:SMS

[GY12] Jerry Gagelman and Harry Yserentant. A spectral method for Schrödinger equations with smooth confinement potentials. *Numerische Mathematik*, 122(2):383–398, October 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=2&spage=383.

Gong:2017:AFE

[GY17] Wei Gong and Ningning Yan. Adaptive finite element method for elliptic optimal control problems: convergence and optimality. *Numerische Mathematik*, 135(4):1121–1170, April 2017. CODEN NUMMA7. ISSN 0029-599X (print),

0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0827-9; http://link.springer.com/article/10.1007/s00211-016-0827-9.

Hackbusch:2011:TVT

[Hac11] Wolfgang Hackbusch. Tensorisation of vectors and their efficient convolution. *Numerische Mathematik*, 119(3):465–488, November 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=3&spage=465.

Hackbusch:2013:ETT

[Hac13] Wolfgang Hackbusch. L^∞ estimation of tensor truncations. *Numerische Mathematik*, 125(3):419–440, November 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0544-6.

Hackbusch:2016:NER

[Hac16] Wolfgang Hackbusch. New estimates for the recursive low-rank truncation of block-structured matrices. *Numerische Mathematik*, 132(2):303–328, February 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0716-7.

Huang:2017:IRT

[HAG17] Wen Huang, P.-A. Absil, and K. A. Gallivan. Intrinsic representation of tangent vectors and vector transports on matrix manifolds. *Numerische Mathematik*, 136(2):523–543, June 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Haji-Ali:2016:MIM

[HANT16] Abdul-Lateef Haji-Ali, Fabio Nobile, and Raúl Tempone. Multi-index Monte Carlo: when sparsity meets sampling. *Numerische Mathematik*, 132(4):767–806, April 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0734-5.

Hari:2015:CDF

[Har15] Vjeran Hari. Convergence to diagonal form of block Jacobi-type methods. *Numerische Mathematik*, 129(3):449–481, March 2015.

CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0647-8.

Hardering:2018:DEB

[Har18] Hanne Hardering. L^2-discretization error bounds for maps into Riemannian manifolds. *Numerische Mathematik*, 139(2):381–410, June 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0941-3.

He:2013:EIE

[He13] Yinnian He. Euler implicit/explicit iterative scheme for the stationary Navier–Stokes equations. *Numerische Mathematik*, 123(1):67–96, January 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0482-8.

Horvath:2019:QPD

[HFK19] Róbert Horváth, István Faragó, and János Karátson. Qualitative properties of discrete nonlinear parabolic operators. *Numerische Mathematik*, 143(3):529–554, November 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01062-6; https://link.springer.com/content/pdf/10.1007/s00211-019-01062-6.pdf.

Huang:2012:IMS

[HFL12] Y. Huang, P. A. Forsyth, and G. Labahn. Iterative methods for the solution of a singular control formulation of a GMWB pricing problem. *Numerische Mathematik*, 122(1):133–167, September 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=1&spage=133.

Hochbruck:2010:CRL

[HH10] Marlis Hochbruck and Michael Hönig. On the convergence of a regularizing Levenberg–Marquardt scheme for nonlinear ill-posed problems. *Numerische Mathematik*, 115(1):71–79, March 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=1&spage=71.

Huang:2011:LPA

[HH11] Jianguo Huang and Xuehai Huang. Local and parallel algorithms for fourth order problems discretized by the Morley–Wang–Xu element method. *Numerische Mathematik*, 119 (4):667–697, December 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=4&spage=667.

Harwood:2016:ESO

[HHB16] Stuart M. Harwood, Kai Höffner, and Paul I. Barton. Efficient solution of ordinary differential equations with a parametric lexicographic linear program embedded. *Numerische Mathematik*, 133(4):623–653, August 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0760-3; http://link.springer.com/article/10.1007/s00211-015-0760-3.

Halla:2016:HSI

[HHNS16] Martin Halla, Thorsten Hohage, Lothar Nannen, and Joachim Schöberl. Hardy space infinite elements for time harmonic wave equations with phase and group velocities of different signs. *Numerische Mathematik*, 133(1):103–139, May 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0739-0.

Hanke:2011:CBS

[HHR11] Martin Hanke, Nuutti Hyvönen, and Stefanie Reusswig. Convex backscattering support in electric impedance tomography. *Numerische Mathematik*, 117(2):373–396, February 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=2&spage=373.

Hu:2015:CBL

[HHS15] Jun Hu, Yunqing Huang, and Quan Shen. Constructing both lower and upper bounds for the eigenvalues of elliptic operators by nonconforming finite element methods. *Numerische Mathematik*, 131(2):273–302, October 2015. CODEN NUMMA7. ISSN

0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0688-z.

He:2019:GGI

[HHX19] Juncai He, Kaibo Hu, and Jinchao Xu. Generalized Gaffney inequality and discrete compactness for discrete differential forms. *Numerische Mathematik*, 143(4):781–795, December 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01076-0.

Han:2014:CDR

[HHYY14] Deren Han, Hongjin He, Hai Yang, and Xiaoming Yuan. A customized Douglas–Rachford splitting algorithm for separable convex minimization with linear constraints. *Numerische Mathematik*, 127(1):167–200, May 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0580-2.

Henriquez:2017:BIF

[HJHA17] Fernando Henríquez, Carlos Jerez-Hanckes, and Fernando Altermatt. Boundary integral formulation and semi-implicit scheme coupling for modeling cells under electrical stimulation. *Numerische Mathematik*, 136(1):101–145, May 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Hsia:2017:TPS

[HJNS17] Chun-Hsiung Hsia, Chang-Yeol Jung, Thien Binh Nguyen, and Ming-Cheng Shiue. On time periodic solutions, asymptotic stability and bifurcations of Navier–Stokes equations. *Numerische Mathematik*, 135(2):607–638, February 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0812-3; http://link.springer.com/article/10.1007/s00211-016-0812-3.

Hochbruck:2015:CAS

[HJS15] Marlis Hochbruck, Tobias Jahnke, and Roland Schnaubelt. Convergence of an ADI splitting for Maxwell's equations. *Numerische Mathematik*, 129(3):535–561, March 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0642-0.

Hong:2014:NAS

[HJT14] Youngjoon Hong, Chang-Yeol Jung, and Roger Temam. On the numerical approximations of stiff convection-diffusion equations in a circle. *Numerische Mathematik*, 127(2):291–313, June 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0585-x`.

Hakopian:2014:GMC

[HJZ14] Hakop Hakopian, Kurt Jetter, and Georg Zimmermann. The Gasca–Maeztu conjecture for $n = 5$. *Numerische Mathematik*, 127(4):685–713, August 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0599-4`.

Heuer:2017:DPG

[HK17] Norbert Heuer and Michael Karkulik. Discontinuous Petrov–Galerkin boundary elements. *Numerische Mathematik*, 135 (4):1011–1043, April 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s00211-016-0824-z`; `http://link.springer.com/article/10.1007/s00211-016-0824-z`.

Hagstrom:2019:CRB

[HK19a] Thomas Hagstrom and Seungil Kim. Complete radiation boundary conditions for the Helmholtz equation I: waveguides. *Numerische Mathematik*, 141(4):917–966, April 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-018-1012-0`.

Hofstatter:2019:NSP

[HK19b] Harald Hofstätter and Othmar Koch. Non-satisfiability of a positivity condition for commutator-free exponential integrators of order higher than four. *Numerische Mathematik*, 141(3):681–691, March 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-018-1015-x`.

Hannukainen:2012:MAC

[HKK12] Antti Hannukainen, Sergey Korotov, and Michal Krízek. The maximum angle condition is not necessary for convergence of the finite element method. *Numerische Mathematik*, 120 (1):79–88, January 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=1&spage=79.

Hinze:2018:ICE

[HKQ18] Michael Hinze, Barbara Kaltenbacher, and Tran Nhan Tam Quyen. Identifying conductivity in electrical impedance tomography with total variation regularization. *Numerische Mathematik*, 138(3):723–765, March 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0920-8.

Hofstatter:2014:CAH

[HKT14] Harald Hofstätter, Othmar Koch, and Mechthild Thalhammer. Convergence analysis of high-order time-splitting pseudo-spectral methods for rotational Gross–Pitaevskii equations. *Numerische Mathematik*, 127(2):315–364, June 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0586-9.

Hong:2016:RMM

[HKXZ16] Qingguo Hong, Johannes Kraus, Jinchao Xu, and Ludmil Zikatanov. A robust multigrid method for discontinuous Galerkin discretizations of Stokes and linear elasticity equations. *Numerische Mathematik*, 132(1):23–49, January 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0712-y.

Hall:2015:SVI

[HL15] James Hall and Melvin Leok. Spectral variational integrators. *Numerische Mathematik*, 130(4):681–740, August 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0679-0.

Hairer:2016:LTA

[HL16] Ernst Hairer and Christian Lubich. Long-term analysis of the Störmer–Verlet method for Hamiltonian systems with a solution-dependent high frequency. *Numerische Mathematik*, 134(1):119–138, September 2016. CODEN NUMMA7.

ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0766-x; http://link.springer.com/article/10.1007/s00211-015-0766-x.

Hu:2018:CRA

[HL18] Shenglong Hu and Guoyin Li. Convergence rate analysis for the higher order power method in best rank one approximations of tensors. *Numerische Mathematik*, 140(4):993–1031, December 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0981-3.

Hakula:2019:ACS

[HL19] Harri Hakula and Mikael Laaksonen. Asymptotic convergence of spectral inverse iterations for stochastic eigenvalue problems. *Numerische Mathematik*, 142(3):577–609, July 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01034-w; https://link.springer.com/content/pdf/10.1007/s00211-019-01034-w.pdf.

Huang:2011:PQS

[HLS11] Tsung-Ming Huang, Wen-Wei Lin, and Wei-Shuo Su. Palindromic quadratization and structure-preserving algorithm for palindromic matrix polynomials of even degree. *Numerische Mathematik*, 118(4):713–735, August 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=4&spage=713.

Hiptmair:2012:CAF

[HLZ12] Ralf Hiptmair, Jingzhi Li, and Jun Zou. Convergence analysis of finite element methods for $H(\mathrm{curl};\Omega)$-elliptic interface problems. *Numerische Mathematik*, 122(3):557–578, November 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=3&spage=557.

Heuer:2013:DGB

[HM13] Norbert Heuer and Salim Meddahi. Discontinuous Galerkin *hp*-bem with quasi-uniform meshes. *Numerische Mathematik*, 125(4):679–703, December 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0547-3.

Hiltebrand:2014:ESS

[HM14] Andreas Hiltebrand and Siddhartha Mishra. Entropy stable shock capturing space–time discontinuous Galerkin schemes for systems of conservation laws. *Numerische Mathematik*, 126(1): 103–151, January 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0558-0.

Hu:2016:SBC

[HM16] Jun Hu and Rui Ma. Superconvergence of both the Crouzeix–Raviart and Morley elements. *Numerische Mathematik*, 132(3): 491–509, March 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0729-2.

Hyvonen:2018:GLT

[HM18] Nuutti Hyvönen and Lauri Mustonen. Generalized linearization techniques in electrical impedance tomography. *Numerische Mathematik*, 140(1):95–120, September 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0959-1.

Hinrichs:2016:OQM

[HMOU16] Aicke Hinrichs, Lev Markhasin, Jens Oettershagen, and Tino Ullrich. Optimal quasi-Monte Carlo rules on order 2 digital nets for the numerical integration of multivariate periodic functions. *Numerische Mathematik*, 134(1):163–196, September 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0765-y; http://link.springer.com/article/10.1007/s00211-015-0765-y.

Hu:2017:SFE

[HMX17] Kaibo Hu, Yicong Ma, and Jinchao Xu. Stable finite element methods preserving $\nabla \cdot \boldsymbol{B} = 0$ exactly for MHD models. *Numerische Mathematik*, 135(2):371–396, February 2017. CODEN NUMMA7. ISSN 0029-599X (print),

0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0803-4; http://link.springer.com/article/10.1007/s00211-016-0803-4.

Huhtanen:2016:PLI

[HN16] Marko Huhtanen and Olavi Nevanlinna. Polynomials and lemniscates of indefiniteness. *Numerische Mathematik*, 133(2):233–253, June 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0745-2.

Heister:2017:ULT

[HOR17a] Timo Heister, Maxim A. Olshanskii, and Leo G. Rebholz. Unconditional long-time stability of a velocity-vorticity method for the 2D Navier–Stokes equations. *Numerische Mathematik*, 135(1):143–167, January 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0794-1; http://link.springer.com/article/10.1007/s00211-016-0794-1.

Horsley:2017:BPF

[Hor17b] David E. Horsley. Bessel phase functions: calculation and application. *Numerische Mathematik*, 136(3):679–702, July 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Hochbruck:2017:EAI

[HP17] Marlis Hochbruck and Tomislav Pazur. Error analysis of implicit Euler methods for quasilinear hyperbolic evolution equations. *Numerische Mathematik*, 135(2):547–569, February 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0810-5; http://link.springer.com/article/10.1007/s00211-016-0810-5.

Harbrecht:2016:ADM

[HPS16] H. Harbrecht, M. Peters, and M. Siebenmorgen. Analysis of the domain mapping method for elliptic diffusion problems on random domains. *Numerische Mathematik*, 134(4):823–856, December 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0791-4; http://link.springer.com/article/10.1007/s00211-016-0791-4.

Hochbruck:2018:EAI

[HPS18] Marlis Hochbruck, Tomislav Pazur, and Roland Schnaubelt. Error analysis of implicit Runge–Kutta methods for quasilinear hyperbolic evolution equations. *Numerische Mathematik*, 138(3): 557–579, March 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0914-6.

Hao:2012:CRT

[HQ12] Dinh Nho Hào and Tran Nhan Tam Quyen. Convergence rates for Tikhonov regularization of a two-coefficient identification problem in an elliptic boundary value problem. *Numerische Mathematik*, 120(1):45–77, January 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=1&spage=45.

Hild:2010:SLM

[HR10] Patrick Hild and Yves Renard. A stabilized Lagrange multiplier method for the finite element approximation of contact problems in elastostatics. *Numerische Mathematik*, 115 (1):101–129, March 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=1&spage=101.

Haine:2012:RID

[HR12] Ghislain Haine and Karim Ramdani. Reconstructing initial data using observers: error analysis of the semi-discrete and fully discrete approximations. *Numerische Mathematik*, 120(2):307–343, February 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=2&spage=307.

Haggblad:2014:ASA

[HR14] Jon Häggblad and Olof Runborg. Accuracy of staircase approximations in finite-difference methods for wave propagation. *Numerische Mathematik*, 128(4):741–771, December 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0625-1.

Hausenblas:2019:TDS

[HR19] Erika Hausenblas and Tsiry A. Randrianasolo. Time-discretization of stochastic 2-D Navier–Stokes equations with a penalty-projection method. *Numerische Mathematik*, 143(2):339–378, October 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01057-3.

Holtz:2012:MTF

[HRS12] Sebastian Holtz, Thorsten Rohwedder, and Reinhold Schneider. On manifolds of tensors of fixed TT-rank. *Numerische Mathematik*, 120(4):701–731, April 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=4&spage=701.

Halvorsen:2013:SGT

[HS13] Tore Gunnar Halvorsen and Torquil Macdonald Sørensen. Simplicial gauge theory on spacetime. *Numerische Mathematik*, 125(4):733–760, December 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0552-6.

Hasegawa:2015:EEC

[HS15] Takemitsu Hasegawa and Hiroshi Sugiura. Error estimate for a corrected Clenshaw–Curtis quadrature rule. *Numerische Mathematik*, 130(1):135–149, May 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0660-y.

Hofmanova:2017:ETI

[HS17] Martina Hofmanová and Katharina Schratz. An exponential-type integrator for the KdV equation. *Numerische Mathematik*, 136(4):1117–1137, August 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Hsia:2018:LTS

[HS18] Chun-Hsiung Hsia and Ming-Cheng Shiue. On the long-time stability of a temporal discretization scheme for the three dimensional viscous primitive equations. *Numerische Mathematik*, 139(1):187–245, May 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0934-2.

Han:2019:CAP

[HS19a] Weimin Han and Mircea Sofonea. Convergence analysis of penalty based numerical methods for constrained inequality problems. *Numerische Mathematik*, 142(4):917–940, August 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01036-8.

Herrmann:2019:QIL

[HS19b] Lukas Herrmann and Christoph Schwab. QMC integration for lognormal-parametric, elliptic PDEs: local supports and product weights. *Numerische Mathematik*, 141(1):63–102, January 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0991-1.

Han:2018:NAS

[HSD18] Weimin Han, Mircea Sofonea, and David Danan. Numerical analysis of stationary variational–hemivariational inequalities. *Numerische Mathematik*, 139(3):563–592, July 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0951-9.

Hernandez-Santamaria:2019:GOC

[HSLZ19] Víctor Hernández-Santamaría, Martin Lazar, and Enrique Zuazua. Greedy optimal control for elliptic problems and its application to turnpike problems. *Numerische Mathematik*, 141(2):455–493, February 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-1005-z.

Hannukainen:2012:UFP

[HSV12] Antti Hannukainen, Rolf Stenberg, and Martin Vohralík. A unified framework for a posteriori error estimation for the Stokes problem. *Numerische Mathematik*, 122(4):725–769, December 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0472-x.

Hesse:2017:RBF

[HSW17] Kerstin Hesse, Ian H. Sloan, and Robert S. Womersley. Radial basis function approximation of noisy scattered data on the sphere.

Numerische Mathematik, 137(3):579–605, November 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0886-6.

Hu:2012:COA

[HSX12] Jun Hu, Zhongci Shi, and Jinchao Xu. Convergence and optimality of the adaptive Morley element method. *Numerische Mathematik*, 121(4):731–752, August 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=4&spage=731.

Hu:2013:DWH

[HSZ13] Qiya Hu, Shi Shu, and Jun Zou. A discrete weighted Helmholtz decomposition and its application. *Numerische Mathematik*, 125(1):153–189, September 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0536-6.

Harbrecht:2018:FSG

[HT18] Helmut Harbrecht and Johannes Tausch. A fast sparse grid based space-time boundary element method for the nonstationary heat equation. *Numerische Mathematik*, 140(1):239–264, September 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0963-5.

Hackbusch:2017:IBH

[HU17] Wolfgang Hackbusch and André Uschmajew. On the interconnection between the higher-order singular values of real tensors. *Numerische Mathematik*, 135(3):875–894, March 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-016-0819-9; http://link.springer.com/content/pdf/10.1007/s00211-016-0819-9.pdf.

Huang:2012:USD

[HV12] Chengming Huang and Stefan Vandewalle. Unconditionally stable difference methods for delay partial differential equations. *Numerische Mathematik*, 122(3):579–601, November 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?

genre=article&issn=0029-599X&volume=122&issue=3&spage=579.

Howell:2011:ISC

[HW11] Jason S. Howell and Noel J. Walkington. Inf-sup conditions for twofold saddle point problems. *Numerische Mathematik*, 118(4):663–693, August 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=4&spage=663.

Hohage:2013:IRN

[HW13] Thorsten Hohage and Frank Werner. Iteratively regularized Newton-type methods for general data misfit functionals and applications to Poisson data. *Numerische Mathematik*, 123(4):745–779, April 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0499-z; http://link.springer.com/content/pdf/10.1007/s00211-012-0499-z.pdf.

Holm:2018:CDG

[HW18] Bärbel Holm and Thomas P. Wihler. Continuous and discontinuous Galerkin time stepping methods for nonlinear initial value problems with application to finite time blow-up. *Numerische Mathematik*, 138(3):767–799, March 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0918-2.

He:2015:NEC

[HY15] Bingsheng He and Xiaoming Yuan. On non-ergodic convergence rate of Douglas–Rachford alternating direction method of multipliers. *Numerische Mathematik*, 130(3):567–577, July 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0673-6.

He:2018:MNE

[HZZ18] Wenming He, Zhimin Zhang, and Qingsong Zou. Maximum-norms error estimates for high-order finite volume schemes over quadrilateral meshes. *Numerische Mathematik*, 138(2):473–500, February 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0912-8.

Imbert-Gerard:2015:IPG

[IG15] Lise-Marie Imbert-Gérard. Interpolation properties of generalized plane waves. *Numerische Mathematik*, 131(4):683–711, December 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0704-y.

Ito:2018:SPR

[IN18] Shinji Ito and Yuji Nakatsukasa. Stable polefinding and rational least-squares fitting via eigenvalues. *Numerische Mathematik*, 139(3):633–682, July 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0948-4; https://link.springer.com/content/pdf/10.1007/s00211-018-0948-4.pdf.

Iserles:2011:FSA

[Ise11] Arieh Iserles. A fast and simple algorithm for the computation of Legendre coefficients. *Numerische Mathematik*, 117(3):529–553, March 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=3&spage=529.

Tanaka:2010:FCD

[iTSMM10] Ken ichiro Tanaka, Masaaki Sugihara, Kazuo Murota, and Masatake Mori. Function classes for double exponential integration formulas. *Numerische Mathematik*, 114(4):631–655, February 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=114&issue=4&spage=631.

Jin:2010:RLM

[Jin10] Qinian Jin. On a regularized Levenberg–Marquardt method for solving nonlinear inverse problems. *Numerische Mathematik*, 115(2):229–259, April 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=2&spage=229.

Jin:2012:OOR

[Jin12] Qinian Jin. On the order optimality of the regularization via inexact Newton iterations. *Numerische Mathematik*, 121 (2):237–260, June 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=2&spage=237.

Jin:2017:HSR

[Jin17] Qinian Jin. On a heuristic stopping rule for the regularization of inverse problems by the augmented Lagrangian method. *Numerische Mathematik*, 136(4):973–992, August 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Jooste:2013:ZMP

[JJT13] A. Jooste, K. Jordaan, and F. Toókos. On the zeros of Meixner polynomials. *Numerische Mathematik*, 124(1):57–71, May 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0504-6.

Jia:2013:CNT

[JL13a] Zhongxiao Jia and Bingyu Li. On the condition number of the total least squares problem. *Numerische Mathematik*, 125(1): 61–87, September 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0533-9.

Johansson:2013:HOD

[JL13b] August Johansson and Mats G. Larson. A high order discontinuous Galerkin Nitsche method for elliptic problems with fictitious boundary. *Numerische Mathematik*, 123(4):607–628, April 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0497-1.

Jia:2015:PPI

[JLL15] Zhongxiao Jia, Wen-Wei Lin, and Ching-Sung Liu. A positivity preserving inexact Noda iteration for computing the smallest eigenpair of a large irreducible M-matrix. *Numerische Mathematik*, 130(4):645–679, August 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0677-2.

Jin:2018:DMR

[JLZ18] Bangti Jin, Buyang Li, and Zhi Zhou. Discrete maximal regularity of time-stepping schemes for fractional evolution equations. *Numerische Mathematik*, 138(1):101–131, January 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0904-8; https://link.springer.com/content/pdf/10.1007/s00211-017-0904-8.pdf.

Jahnke:2018:AMR

[JM18] Tobias Jahnke and Marcel Mikl. Adiabatic midpoint rule for the dispersion-managed nonlinear Schrödinger equation. *Numerische Mathematik*, 138(4):975–1009, April 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0926-2.

Jarlebring:2012:LEA

[JMM12] Elias Jarlebring, Wim Michiels, and Karl Meerbergen. A linear eigenvalue algorithm for the nonlinear eigenvalue problem. *Numerische Mathematik*, 122(1):169–195, September 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=1&spage=169.

Janovska:2010:CCZ

[JO10] Drahoslava Janovská and Gerhard Opfer. The classification and the computation of the zeros of quaternionic, two-sided polynomials. *Numerische Mathematik*, 115(1):81–100, March 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=1&spage=81.

Jeon:2013:NLC

[JP13] Youngmok Jeon and Eun-Jae Park. New locally conservative finite element methods on a rectangular mesh. *Numerische Mathematik*, 123(1):97–119, January 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0477-5.

John:2018:ECF

[JSW18] Lorenz John, Piotr Swierczynski, and Barbara Wohlmuth. Energy corrected FEM for optimal Dirichlet boundary control problems. *Numerische Mathematik*, 139(4):913–938, August 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0952-8.

Jin:2011:INR

[JT11] Qinian Jin and Ulrich Tautenhahn. Inexact Newton regularization methods in Hilbert scales. *Numerische Mathematik*, 117(3):555–579, March 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=3&spage=555.

Javed:2016:EMG

[JT16] Mohsin Javed and Lloyd N. Trefethen. Euler–Maclaurin and Gregory interpolants. *Numerische Mathematik*, 132(1):201–216, January 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0713-x.

Juntunen:2015:CBS

[Jun15] Mika Juntunen. On the connection between the stabilized Lagrange multiplier and Nitsche's methods. *Numerische Mathematik*, 131(3):453–471, November 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0701-1.

Jin:2016:LMM

[JY16] Qinian Jin and Hongqi Yang. Levenberg–Marquardt method in Banach spaces with general convex regularization terms. *Numerische Mathematik*, 133(4):655–684, August 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0764-z; http://link.springer.com/article/10.1007/s00211-015-0764-z.

Jin:2013:IRG

[JZ13] Qinian Jin and Min Zhong. On the iteratively regularized Gauss–Newton method in Banach spaces with applications to parameter identification problems. *Numerische Mathematik*, 124(4):

647–683, August 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0529-5.

Jin:2014:NIT

[JZ14] Qinian Jin and Min Zhong. Nonstationary iterated Tikhonov regularization in Banach spaces with uniformly convex penalty terms. *Numerische Mathematik*, 127(3):485–513, July 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0594-9.

Kaltenbacher:2015:IRG

[Kal15] Barbara Kaltenbacher. An iteratively regularized Gauss–Newton-Halley method for solving nonlinear ill-posed problems. *Numerische Mathematik*, 131(1):33–57, September 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0682-5.

Karper:2013:CFD

[Kar13] Trygve K. Karper. A convergent FEM–DG method for the compressible Navier–Stokes equations. *Numerische Mathematik*, 125(3):441–510, November 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0543-7.

Kaltenbacher:2018:CAD

[KdS18] Barbara Kaltenbacher and Mario Luiz Previatti de Souza. Convergence and adaptive discretization of the IRGNM Tikhonov and the IRGNM Ivanov method under a tangential cone condition in Banach space. *Numerische Mathematik*, 140 (2):449–478, October 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0971-5; https://link.springer.com/content/pdf/10.1007/s00211-018-0971-5.pdf.

Kim:2019:NMC

[Kim19] Yunho Kim. A Newton's method characterization for real eigenvalue problems. *Numerische Mathematik*, 142(4):941–971, August 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01037-7.

Kirby:2011:FSF

[Kir11] Robert C. Kirby. Fast simplicial finite element algorithms using Bernstein polynomials. *Numerische Mathematik*, 117 (4):631–652, April 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=4&spage=631.

Kirby:2017:FIS

[Kir17] Robert C. Kirby. Fast inversion of the simplicial Bernstein mass matrix. *Numerische Mathematik*, 135(1):73–95, January 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0795-0; http://link.springer.com/article/10.1007/s00211-016-0795-0.

Kammerer:2011:SHC

[KK11] Lutz Kämmerer and Stefan Kunis. On the stability of the hyperbolic cross discrete Fourier transform. *Numerische Mathematik*, 117(3):581–600, March 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=3&spage=581.

Katsaounis:2015:PEC

[KK15a] Theodoros Katsaounis and Irene Kyza. A posteriori error control and adaptivity for Crank–Nicolson finite element approximations for the linear Schrödinger equation. *Numerische Mathematik*, 129 (1):55–90, January 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0634-0.

Kim:2015:NCC

[KK15b] J. H. Kim and Do Y. Kwak. New curl conforming finite elements on parallelepiped. *Numerische Mathematik*, 131(3):473–488, November 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0696-7.

Kirby:2015:SMF

[KK15c] Robert C. Kirby and Thinh Tri Kieu. Symplectic-mixed finite element approximation of linear acoustic wave equations.

Numerische Mathematik, 130(2):257–291, June 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0667-4.

Kinoshita:2014:PEI

[KKN14] Takehiko Kinoshita, Takuma Kimura, and Mitsuhiro T. Nakao. On the a posteriori estimates for inverse operators of linear parabolic equations with applications to the numerical enclosure of solutions for nonlinear problems. *Numerische Mathematik*, 126(4):679–701, April 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0575-z; http://link.springer.com/content/pdf/10.1007/s00211-013-0575-z.pdf.

Karlsen:2012:EEF

[KKR12] K. H. Karlsen, U. Koley, and N. H. Risebro. An error estimate for the finite difference approximation to degenerate convection-diffusion equations. *Numerische Mathematik*, 121(2):367–395, June 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=2&spage=367.

Kovacs:2017:SCF

[KL17] Balázs Kovács and Christian Lubich. Stable and convergent fully discrete interior–exterior coupling of Maxwell's equations. *Numerische Mathematik*, 137(1):91–117, September 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). See correction [NKL21].

Kovacs:2018:LIF

[KL18a] Balázs Kovács and Christian Lubich. Linearly implicit full discretization of surface evolution. *Numerische Mathematik*, 140(1):121–152, September 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0962-6.

Kovacs:2018:SCT

[KL18b] Balázs Kovács and Christian Lubich. Stability and convergence of time discretizations of quasi-linear evolution equations of Kato type. *Numerische Mathematik*, 138(2):365–388, February 2018.

CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-017-0909-3`.

Klapproth:2015:CSN

[Kla15] Corinna Klapproth. The contact-stabilized Newmark method: consistency error of a spatiotemporal discretization. *Numerische Mathematik*, 131(1):59–82, September 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-014-0686-1`.

Kovacs:2019:CEF

[KLL19] Balázs Kovács, Buyang Li, and Christian Lubich. A convergent evolving finite element algorithm for mean curvature flow of closed surfaces. *Numerische Mathematik*, 143(4):797–853, December 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-019-01074-2`.

Kovacs:2017:CFE

[KLLG17] Balázs Kovács, Buyang Li, Christian Lubich, and Christian A. Power Guerra. Convergence of finite elements on an evolving surface driven by diffusion on the surface. *Numerische Mathematik*, 137(3):643–689, November 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-017-0888-4`.

Kuo:2019:SPF

[KLS19] Yueh-Cheng Kuo, Wen-Wei Lin, and Shih-Feng Shieh. A structure preserving flow for computing Hamiltonian matrix exponential. *Numerische Mathematik*, 143(3):555–582, November 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-019-01065-3`.

Kunemund:2019:HOM

[KNWW19] Jens Künemund, Francis J. Narcowich, Joseph D. Ward, and Holger Wendland. A high-order meshless Galerkin method for semilinear parabolic equations on spheres. *Numerische Mathematik*, 142(2):383–419, June 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-018-01021-7`.

Koev:2019:AEE

[Koe19] Plamen Koev. Accurate eigenvalues and exact zero Jordan blocks of totally nonnegative matrices. *Numerische Mathematik*, 141 (3):693–713, March 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01022-0.

Kopteva:2017:ENP

[Kop17] Natalia Kopteva. Energy-norm a posteriori error estimates for singularly perturbed reaction-diffusion problems on anisotropic meshes. *Numerische Mathematik*, 137(3):607–642, November 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0889-3.

Kashiwabara:2016:PMP

[KOZ16] Takahito Kashiwabara, Issei Oikawa, and Guanyu Zhou. Penalty method with P1/P1 finite element approximation for the Stokes equations under the slip boundary condition. *Numerische Mathematik*, 134(4):705–740, December 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0790-5; http://link.springer.com/article/10.1007/s00211-016-0790-5.

Karpinski:2017:AIP

[KP17] Stefan Karpinski and Iuliu Sorin Pop. Analysis of an interior penalty discontinuous Galerkin scheme for two phase flow in porous media with dynamic capillary effects. *Numerische Mathematik*, 136(1):249–286, May 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Kumar:2014:CAC

[KPR14] K. Kumar, I. S. Pop, and F. A. Radu. Convergence analysis for a conformal discretization of a model for precipitation and dissolution in porous media. *Numerische Mathematik*, 127(4): 715–749, August 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0601-1.

Kristensen:2016:PAA

[KR16] Jan Kristensen and Filip Rindler. Piecewise affine approximations for functions of bounded variation. *Numerische Mathe-*

matik, 132(2):329–346, February 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0721-x.

Kress:2017:TIE

[Kre17] Rainer Kress. On Trefftz' integral equation for the Bernoulli free boundary value problem. *Numerische Mathematik*, 136(2):503–522, June 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Knizhnerman:2011:CAE

[KS11a] L. Knizhnerman and V. Simoncini. Convergence analysis of the extended Krylov subspace method for the Lyapunov equation. *Numerische Mathematik*, 118(3):567–586, July 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=3&spage=567.

Kopteva:2011:SAI

[KS11b] Natalia Kopteva and Martin Stynes. Stabilised approximation of interior-layer solutions of a singularly perturbed semilinear reaction-diffusion problem. *Numerische Mathematik*, 119(4):787–810, December 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=4&spage=787.

Kreuzer:2011:DRA

[KS11c] Christian Kreuzer and Kunibert G. Siebert. Decay rates of adaptive finite elements with Dörfler marking. *Numerische Mathematik*, 117(4):679–716, April 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=4&spage=679.

Kazeev:2018:QTS

[KS18a] Vladimir Kazeev and Christoph Schwab. Quantized tensor-structured finite elements for second-order elliptic PDEs in two dimensions. *Numerische Mathematik*, 138(1):133–190, January 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0899-1.

Kemmochi:2018:DMR

[KS18b] Tomoya Kemmochi and Norikazu Saito. Discrete maximal regularity and the finite element method for parabolic equations. *Numerische Mathematik*, 138(4):905–937, April 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-017-0929-z`.

Klapproth:2010:CRN

[KSD10] Corinna Klapproth, Anton Schiela, and Peter Deuflhard. Consistency results on Newmark methods for dynamical contact problems. *Numerische Mathematik*, 116(1):65–94, July 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=1&spage=65`.

Klapproth:2011:ATC

[KSD11] Corinna Klapproth, Anton Schiela, and Peter Deuflhard. Adaptive timestep control for the contact-stabilized Newmark method. *Numerische Mathematik*, 119(1):49–81, September 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=1&spage=49`.

Krendl:2013:SES

[KSZ13] Wolfgang Krendl, Valeria Simoncini, and Walter Zulehner. Stability estimates and structural spectral properties of saddle point problems. *Numerische Mathematik*, 124(1):183–213, May 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-012-0507-3`.

Kirby:2012:FSQ

[KT12] Robert C. Kirby and Kieu Tri Thinh. Fast simplicial quadrature-based finite element operators using Bernstein polynomials. *Numerische Mathematik*, 121(2):261–279, June 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=2&spage=261`.

Krause:2015:ERR

[KVW15] Rolf Krause, Andreas Veeser, and Mirjam Walloth. An efficient and reliable residual-type a posteriori error estimator for the Signorini problem. *Numerische Mathematik*, 130(1):151–197, May 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0655-8.

Kreusler:2012:MRE

[KY12] Hans-Christian Kreusler and Harry Yserentant. The mixed regularity of electronic wave functions in fractional order and weighted Sobolev spaces. *Numerische Mathematik*, 121(4):781–802, August 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=4&spage=781.

Li:2011:SDS

[LA11] Yuan Li and Rong An. Semi-discrete stabilized finite element methods for Navier–Stokes equations with nonlinear slip boundary conditions based on regularization procedure. *Numerische Mathematik*, 117(1):1–36, January 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=1&spage=1.

Li:2014:OTL

[LC14] Jian Li and Zhangxin Chen. Optimal L^2, H^1 and L^∞ analysis of finite volume methods for the stationary Navier–Stokes equations with large data. *Numerische Mathematik*, 126(1):75–101, January 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0556-2.

Li:2012:SML

[LCH12] Jian Li, Zhangxin Chen, and Yinnian He. A stabilized multilevel method for non-singular finite volume solutions of the stationary 3D Navier–Stokes equations. *Numerische Mathematik*, 122(2):279–304, October 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=2&spage=279.

Liu:2017:EAM

[LCWW17] Yuan Liu, Wenbin Chen, Cheng Wang, and Steven M. Wise. Error analysis of a mixed finite element method for a Cahn–Hilliard–Hele–Shaw system. *Numerische Mathematik*, 135(3):679–709, March 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0813-2; http://link.springer.com/article/10.1007/s00211-016-0813-2.

Lesinigo:2011:MDB

[LDQ11] Matteo Lesinigo, Carlo D'Angelo, and Alfio Quarteroni. A multiscale Darcy–Brinkman model for fluid flow in fractured porous media. *Numerische Mathematik*, 117(4):717–752, April 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=4&spage=717.

Lopez-Fernandez:2016:GCQ

[LFS16] M. Lopez-Fernandez and S. Sauter. Generalized convolution quadrature based on Runge–Kutta methods. *Numerische Mathematik*, 133(4):743–779, August 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0761-2; http://link.springer.com/article/10.1007/s00211-015-0761-2.

Li:2014:FSL

[LGC14] Shengguo Li, Ming Gu, and Lizhi Cheng. Fast structured LU factorization for nonsymmetric matrices. *Numerische Mathematik*, 127(1):35–55, May 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0582-0.

Liu:2017:NNI

[LGL17] Ching-Sung Liu, Chun-Hua Guo, and Wen-Wei Lin. Newton–Noda iteration for finding the Perron pair of a weakly irreducible nonnegative tensor. *Numerische Mathematik*, 137(1):63–90, September 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Lu:2014:MPL

[LHQ14] Changna Lu, Weizhang Huang, and Jianxian Qiu. Maximum principle in linear finite element approximations of anisotropic diffusion-convection-reaction problems. *Numerische Mathematik*, 127(3):515–537, July 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0595-8`.

Li:2015:MNS

[Li15] Buyang Li. Maximum-norm stability and maximal L^p regularity of FEMs for parabolic equations with Lipschitz continuous coefficients. *Numerische Mathematik*, 131(3):489–516, November 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-015-0698-5`.

Lin:2017:RES

[Lin17] Lin Lin. Randomized estimation of spectral densities of large matrices made accurate. *Numerische Mathematik*, 136(1):183–213, May 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Luthen:2018:IPE

[LJS18] Nora Lüthen, Mika Juntunen, and Rolf Stenberg. An improved a priori error analysis of Nitsche's method for Robin boundary conditions. *Numerische Mathematik*, 138(4):1011–1026, April 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-017-0927-1`.

Lu:2010:EEN

[LL10] Xiliang Lu and Ping Lin. Error estimate of the P_1 nonconforming finite element method for the penalized unsteady Navier–Stokes equations. *Numerische Mathematik*, 115(2):261–287, April 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=2&spage=261`.

Larsson:2012:CPL

[LL12] Karl Larsson and Mats G. Larson. Continuous piecewise linear finite elements for the Kirchhoff–Love plate equation. *Numerische Mathematik*, 121(1):65–97, May 2012. CODEN NUMMA7. ISSN

0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=1&spage=65.

Li:2010:SBE

[LLW10] Ren-Cang Li, Wen-Wei Lin, and Chern-Shuh Wang. Structured backward error for palindromic polynomial eigenvalue problems. *Numerische Mathematik*, 116(1):95–122, July 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=1&spage=95.

Liang:2015:FEA

[LLY15] Kewei Liang, Xiliang Lu, and Jerry Zhijian Yang. Finite element approximation to the extremal eigenvalue problem for inhomogeneous materials. *Numerische Mathematik*, 130(4):741–762, August 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0678-1.

Larson:2011:PEE

[LM11] Mats G. Larson and Axel Målqvist. A posteriori error estimates for mixed finite element approximations of parabolic problems. *Numerische Mathematik*, 118(1):33–48, May 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=1&spage=33.

Lubich:2013:IPE

[LM13] Christian Lubich and Charalambos Makridakis. Interior a posteriori error estimates for time discrete approximations of parabolic problems. *Numerische Mathematik*, 124(3):541–557, July 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0520-1.

Louka:2015:CES

[LM15] M. A. Louka and N. M. Missirlis. A comparison of the Extrapolated Successive Overrelaxation and the Preconditioned Simultaneous Displacement methods for augmented linear systems. *Numerische Mathematik*, 131(3):517–540, November 2015.

CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0697-6.

Li:2017:TRN

[LMcS17] Hongliang Li, Pingbing Ming, and Zhong ci Shi. Two robust nonconforming H^2-elements for linear strain gradient elasticity. *Numerische Mathematik*, 137(3):691–711, November 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0890-x.

Lepe:2019:MDG

[LMMR19] Felipe Lepe, Salim Meddahi, David Mora, and Rodolfo Rodríguez. Mixed discontinuous Galerkin approximation of the elasticity eigenproblem. *Numerische Mathematik*, 142(3):749–786, July 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01035-9.

Loneland:2016:AAS

[LMR16] A. Loneland, L. Marcinkowski, and T. Rahman. Additive average Schwarz method for a Crouzeix–Raviart finite volume element discretization of elliptic problems with heterogeneous coefficients. *Numerische Mathematik*, 134(1):91–118, September 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0771-0; http://link.springer.com/article/10.1007/s00211-015-0771-0.

Lederer:2019:RPE

[LMS19] Philip Lukas Lederer, Christian Merdon, and Joachim Schöberl. Refined a posteriori error estimation for classical and pressure-robust Stokes finite element methods. *Numerische Mathematik*, 142(3):713–748, July 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01049-3.

Lanza:2017:NNO

[LMSS17] A. Lanza, S. Morigi, I. Selesnick, and F. Sgallari. Nonconvex nonsmooth optimization via convex-nonconvex majorization-minimization. *Numerische Mathematik*, 136(2):343–381, June 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Li:2018:IEE

[LMY18] Hengguang Li, Lin Mu, and Xiu Ye. Interior energy error estimates for the weak Galerkin finite element method. *Numerische Mathematik*, 139(2):447–478, June 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0940-4.

Li:2015:SBS

[LN15] Wen Li and Michael K. Ng. Some bounds for the spectral radius of nonnegative tensors. *Numerische Mathematik*, 130(2):315–335, June 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0666-5.

Li:2018:RPE

[LN18] Hengguang Li and Serge Nicaise. Regularity and a priori error analysis on anisotropic meshes of a Dirichlet problem in polyhedral domains. *Numerische Mathematik*, 139(1):47–92, May 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0936-0.

Li:2014:PEE

[LO14] Hengguang Li and Jeffrey S. Ovall. A posteriori error estimation of hierarchical type for the Schrödinger operator with inverse square potential. *Numerische Mathematik*, 128(4):707–740, December 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0628-y.

Li:2016:ABA

[LOSV16] Xingjie Helen Li, Christoph Ortner, Alexander V. Shapeev, and Brian Van Koten. Analysis of blended atomistic/continuum hybrid methods. *Numerische Mathematik*, 134(2):275–326, October 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0772-z; http://link.springer.com/article/10.1007/s00211-015-0772-z.

Lozinski:2019:PDG

[Loz19] Alexei Lozinski. A primal discontinuous Galerkin method with static condensation on very general meshes. *Numerische Mathematik*, 143(3):583–604, November 2019. CODEN NUMMA7.

ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01067-1.

Lu:2011:MPR

[LP11] Shuai Lu and Sergei V. Pereverzev. Multi-parameter regularization and its numerical realization. *Numerische Mathematik*, 118(1):1–31, May 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=1&spage=1.

Liu:2015:LDG

[LP15] Hailiang Liu and Nattapol Ploymaklam. A local discontinuous Galerkin method for the Burgers–Poisson equation. *Numerische Mathematik*, 129(2):321–351, February 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0641-1.

Lehrenfeld:2017:OPN

[LR17] Christoph Lehrenfeld and Arnold Reusken. Optimal preconditioners for Nitsche–XFEM discretizations of interface problems. *Numerische Mathematik*, 135(2):313–332, February 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0801-6; http://link.springer.com/article/10.1007/s00211-016-0801-6.

Lelievre:2019:HMC

[LRS19] Tony Lelièvre, Mathias Rousset, and Gabriel Stoltz. Hybrid Monte Carlo methods for sampling probability measures on submanifolds. *Numerische Mathematik*, 143(2):379–421, October 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01056-4. See correction [LRS20].

Lelievre:2020:CHM

[LRS20] Tony Lelièvre, Mathias Rousset, and Gabriel Stoltz. Correction to: Hybrid Monte Carlo methods for sampling probability measures on submanifolds. *Numerische Mathematik*, 144(2):447–449, February 2020. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01086-y;

https://link.springer.com/content/pdf/10.1007/s00211-019-01086-y.pdf. See [LRS19].

Li:2016:SAY

[LS16] Jichun Li and Sidney Shields. Superconvergence analysis of Yee scheme for metamaterial Maxwell's equations on non-uniform rectangular meshes. *Numerische Mathematik*, 134(4):741–781, December 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0788-4; http://link.springer.com/article/10.1007/s00211-015-0788-4.

Lasser:2017:DHK

[LS17] Caroline Lasser and David Sattlegger. Discretising the Herman–Kluk propagator. *Numerische Mathematik*, 137(1):119–157, September 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Leobacher:2018:CEM

[LS18] Gunther Leobacher and Michaela Szölgyenyi. Convergence of the Euler–Maruyama method for multidimensional SDEs with discontinuous drift and degenerate diffusion coefficient. *Numerische Mathematik*, 138(1):219–239, January 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0903-9; https://link.springer.com/content/pdf/10.1007/s00211-017-0903-9.pdf.

LeGia:2011:SPH

[LSW11] Q. T. Le Gia, I. H. Sloan, and Andrew J. Wathen. Stability and preconditioning for a hybrid approximation on the sphere. *Numerische Mathematik*, 118(4):695–711, August 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=4&spage=695.

LeGia:2012:MRC

[LSW12] Q. T. Le Gia, I. H. Sloan, and H. Wendland. Multiscale RBF collocation for solving PDEs on spheres. *Numerische Mathematik*, 121(1):99–125, May 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.

springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=1&spage=99.

Lopez:2010:ANP

[LT10] José Luis López and Nico M. Temme. Asymptotics and numerics of polynomials used in Tricomi and Buchholz expansions of Kummer functions. *Numerische Mathematik*, 116 (2):269–289, August 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=2&spage=269.

Lui:2017:LSC

[Lui17] S. H. Lui. Legendre spectral collocation in space and time for PDEs. *Numerische Mathematik*, 136(1):75–99, May 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Lang:2013:MOC

[LV13] J. Lang and J. G. Verwer. W-methods in optimal control. *Numerische Mathematik*, 124(2):337–360, June 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0516-x.

Leykekhman:2017:DMP

[LV17] Dmitriy Leykekhman and Boris Vexler. Discrete maximal parabolic regularity for Galerkin finite element methods. *Numerische Mathematik*, 135(3):923–952, March 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0821-2; http://link.springer.com/article/10.1007/s00211-016-0821-2.

Lipnikov:2014:DGM

[LVY14] Konstantin Lipnikov, Danail Vassilev, and Ivan Yotov. Discontinuous Galerkin and mimetic finite difference methods for coupled Stokes–Darcy flows on polygonal and polyhedral grids. *Numerische Mathematik*, 126(2):321–360, February 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0563-3.

Li:2015:CBL

[LZ15] Ren-Cang Li and Lei-Hong Zhang. Convergence of the block Lanczos method for eigenvalue clusters. *Numerische Mathematik*, 131(1):83–113, September 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0681-6.

Makridakis:2018:BOA

[Mak18] Charalambos G. Makridakis. On the Babuska–Osborn approach to finite element analysis: L^2 estimates for unstructured meshes. *Numerische Mathematik*, 139(4):831–844, August 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0955-5.

Mantica:2013:DIC

[Man13] Giorgio Mantica. Direct and inverse computation of Jacobi matrices of infinite iterated function systems. *Numerische Mathematik*, 125(4):705–731, December 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0551-7.

Mansour:2015:GRK

[Man15a] Dhia Mansour. Gauss–Runge–Kutta time discretization of wave equations on evolving surfaces. *Numerische Mathematik*, 129(1):21–53, January 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0632-2.

Manton:2015:FGN

[Man15b] Jonathan H. Manton. A framework for generalising the Newton method and other iterative methods from Euclidean space to manifolds. *Numerische Mathematik*, 129(1):91–125, January 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0630-4.

Mascarenhas:2014:SBI

[Mas14] Walter F. Mascarenhas. The stability of barycentric interpolation at the Chebyshev points of the second kind. *Numerische Mathematik*, 128(2):265–300, October 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0612-6.

Maset:2016:AFN

[Mas16] Stefano Maset. An abstract framework in the numerical solution of boundary value problems for neutral functional differential equations. *Numerische Mathematik*, 133(3):525–555, July 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0754-1; http://link.springer.com/article/10.1007/s00211-015-0754-1.

Matt:2013:TME

[Mat13] Michael A. Matt. A C^r trivariate macro-element based on the Worsey–Farin split of a tetrahedron. *Numerische Mathematik*, 123(1):121–144, January 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0478-4.

Mazure:2011:HBA

[Maz11a] Marie-Laurence Mazure. How to build all Chebyshevian spline spaces good for geometric design? *Numerische Mathematik*, 119(3):517–556, November 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=3&spage=517.

Mazure:2011:QEC

[Maz11b] Marie-Laurence Mazure. Quasi Extended Chebyshev spaces and weight functions. *Numerische Mathematik*, 118(1):79–108, May 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=1&spage=79.

Mascarenhas:2017:ERE

[MdC17] Walter F. Mascarenhas and André Pierro de Camargo. The effects of rounding errors in the nodes on barycentric interpolation. *Numerische Mathematik*, 135(1):113–141, January 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0798-x; http://link.springer.com/article/10.1007/s00211-016-0798-x.

Mengi:2011:LNM

[Men11] Emre Mengi. Locating a nearest matrix with an eigenvalue of prespecified algebraic multiplicity. *Numerische Mathematik*, 118(1):109–135, May 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=1&spage=109.

He:2017:UHO

[mHZZ17] Wen ming He, Zhimin Zhang, and Qingsong Zou. Ultraconvergence of high order FEMs for elliptic problems with variable coefficients. *Numerische Mathematik*, 136(1):215–248, May 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Mirebeau:2012:OAM

[Mir12] Jean-Marie Mirebeau. Optimally adapted meshes for finite elements of arbitrary order and $W^{1,p}$ norms. *Numerische Mathematik*, 120(2):271–305, February 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=2&spage=271.

Mirebeau:2014:EFM

[Mir14] Jean-Marie Mirebeau. Efficient fast marching with Finsler metrics. *Numerische Mathematik*, 126(3):515–557, March 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0571-3.

Mirebeau:2016:AAH

[Mir16] Jean-Marie Mirebeau. Adaptive, anisotropic and hierarchical cones of discrete convex functions. *Numerische Mathematik*, 132(4):807–853, April 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0732-7.

Massing:2014:SNO

[MLLR14] André Massing, Mats G. Larson, Anders Logg, and Marie E. Rognes. A stabilized Nitsche overlapping mesh method for the Stokes problem. *Numerische Mathematik*, 128(1):73–101, September 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0603-z.

McLachlan:2016:SME

[MMMKV16] Robert I. McLachlan, Klas Modin, Hans Munthe-Kaas, and Olivier Verdier. B-series methods are exactly the affine equivariant methods. *Numerische Mathematik*, 133(3):599–622, July 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0753-2; http://link.springer.com/article/10.1007/s00211-015-0753-2.

Manna:2010:FNA

[MMMS10] Dante V. Manna, Luis A. Medina, Victor H. Moll, and Armin Straub. A fast numerical algorithm for the integration of rational functions. *Numerische Mathematik*, 115 (2):289–307, April 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=2&spage=289.

Motamed:2013:SCM

[MNT13] Mohammad Motamed, Fabio Nobile, and Raúl Tempone. A stochastic collocation method for the second order wave equation with a discontinuous random speed. *Numerische Mathematik*, 123 (3):493–536, March 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0493-5.

Maree:2017:PEE

[MOGO17] S. C. Maree, L. Ortiz-Gracia, and C. W. Oosterlee. Pricing early-exercise and discrete barrier options by Shannon wavelet expansions. *Numerische Mathematik*, 136(4):1035–1070, August 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Monzon:2019:AIE

[Mon19] Gabriel Monzón. Anisotropic interpolation error estimate for arbitrary quadrilateral isoparametric elements. *Numerische Mathematik*, 143(2):315–338, October 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01061-7.

Massoudi:2017:AMB

[MOR17] Arash Massoudi, Mark R. Opmeer, and Timo Reis. The ADI method for bounded real and positive real Lur'e equations. *Numerische Mathematik*, 135(2):431–458, February 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0805-2; http://link.springer.com/article/10.1007/s00211-016-0805-2.

Makridakis:2011:PEA

[MOS11] Charalambos Makridakis, Christoph Ortner, and Endre Süli. A priori error analysis of two force-based atomistic/continuum models of a periodic chain. *Numerische Mathematik*, 119(1):83–121, September 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=1&spage=83.

Maalqvist:2015:CEN

[MP15] Axel Målqvist and Daniel Peterseim. Computation of eigenvalues by numerical upscaling. *Numerische Mathematik*, 130(2):337–361, June 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0665-6.

Maalqvist:2018:MTP

[MP18a] Axel Målqvist and Anna Persson. Multiscale techniques for parabolic equations. *Numerische Mathematik*, 138(1):191–217, January 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0905-7; https://link.springer.com/content/pdf/10.1007/s00211-017-0905-7.pdf.

Moiola:2018:STT

[MP18b] Andrea Moiola and Ilaria Perugia. A space-time Trefftz discontinuous Galerkin method for the acoustic wave equation in first-order formulation. *Numerische Mathematik*, 138(2):389–435, February 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0910-x.

Meng:2017:DGM

[MR17] Xiong Meng and Jennifer K. Ryan. Discontinuous Galerkin methods for nonlinear scalar hyperbolic conservation laws: divided difference estimates and accuracy enhancement. *Numerische Mathematik*, 136(1):27–73, May 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/content/pdf/10.1007/s00211-016-0833-y.pdf.

Merrien:2019:GTO

[MS19] Jean-Louis Merrien and Tomas Sauer. Generalized Taylor operators and polynomial chains for Hermite subdivision schemes. *Numerische Mathematik*, 142(1):167–203, May 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0996-9.

Magoules:2017:AOS

[MSV17] Frédéric Magoulès, Daniel B. Szyld, and Cédric Venet. Asynchronous optimized Schwarz methods with and without overlap. *Numerische Mathematik*, 137(1):199–227, September 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Mardal:2013:USF

[MSW13] Kent-Andre Mardal, Joachim Schöberl, and Ragnar Winther. A uniformly stable Fortin operator for the Taylor–Hood element. *Numerische Mathematik*, 123(3):537–551, March 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0492-6.

Murakawa:2017:LFV

[Mur17] Hideki Murakawa. A linear finite volume method for nonlinear cross-diffusion systems. *Numerische Mathematik*, 136(1):1–26, May 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Mustapha:2015:TSD

[Mus15] Kassem Mustapha. Time-stepping discontinuous Galerkin methods for fractional diffusion problems. *Numerische Mathematik*, 130(3):497–516, July 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0669-2.

Mertens:2015:SRC

[MV15] Clara Mertens and Raf Vandebril. Short recurrences for computing extended Krylov bases for Hermitian and unitary matrices. *Numerische Mathematik*, 131(2):303–328, October 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0692-3.

Nakatsukasa:2012:CNM

[Nak12] Yuji Nakatsukasa. On the condition numbers of a multiple eigenvalue of a generalized eigenvalue problem. *Numerische Mathematik*, 121(3):531–544, July 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=3&spage=531.

Nakano:2017:CMC

[Nak17] Yumiharu Nakano. Convergence of meshfree collocation methods for fully nonlinear parabolic equations. *Numerische Mathematik*, 136(3):703–723, July 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Noumir:2014:NEM

[NDL14] Youness Noumir, François Dubois, and Olivier Lafitte. Numerical Eulerian method for linearized gas dynamics in the high frequency regime. *Numerische Mathematik*, 127(4):641–683, August 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0598-5.

Neilan:2010:NMF

[Nei10] Michael Neilan. A nonconforming Morley finite element method for the fully nonlinear Monge–Ampère equation. *Numerische Mathematik*, 115(3):371–394, May 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=3&spage=371.

Niu:2010:MTF

[NGKN10] Qiang Niu, Laura Grigori, Pawan Kumar, and Frédéric Nataf. Modified tangential frequency filtering decomposition and its Fourier analysis. *Numerische Mathematik*, 116

(1):123–148, July 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=1&spage=123.

Nievergelt:2010:MST

[Nie10] Yves Nievergelt. Median spheres: theory, algorithms, applications. *Numerische Mathematik*, 114(4):573–606, February 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=114&issue=4&spage=573.

Nick:2021:CSC

[NKL21] Jörg Nick, Balázs Kovács, and Christian Lubich. Correction to: Stable and convergent fully discrete interior–exterior coupling of Maxwell's equations. *Numerische Mathematik*, 147(4):997–1000, April 2021. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-021-01196-6; https://www.math.utah.edu/pub/tex/bib/nummath2010.bib; https://link.springer.com/content/pdf/10.1007/s00211-021-01196-6.pdf. See [KL17].

Napov:2011:SFO

[NN11] Artem Napov and Yvan Notay. Smoothing factor, order of prolongation and actual multigrid convergence. *Numerische Mathematik*, 118(3):457–483, July 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=3&spage=457.

Nakatsukasa:2015:CCZ

[NNT15] Yuji Nakatsukasa, Vanni Noferini, and Alex Townsend. Computing the common zeros of two bivariate functions via Bézout resultants. *Numerische Mathematik*, 129(1):181–209, January 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0635-z.

Nochetto:2016:PPI

[NOS16] Ricardo H. Nochetto, Enrique Otárola, and Abner J. Salgado. Piecewise polynomial interpolation in Muckenhoupt weighted

Sobolev spaces and applications. *Numerische Mathematik*, 132 (1):85–130, January 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0709-6.

Notaris:2016:CFQ

[Not16a] Sotirios E. Notaris. On a corrected Fejér quadrature formula of the second kind. *Numerische Mathematik*, 133(2):279–302, June 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0750-5.

Notay:2016:NAM

[Not16b] Yvan Notay. A new algebraic multigrid approach for Stokes problems. *Numerische Mathematik*, 132(1):51–84, January 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0710-0.

Notaris:2019:SPR

[Not19] Sotirios E. Notaris. Stieltjes polynomials and related quadrature formulae for a class of weight functions, II. *Numerische Mathematik*, 142(1):129–147, May 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-1009-8.

Nouy:2019:HOP

[Nou19] Anthony Nouy. Higher-order principal component analysis for the approximation of tensors in tree-based low-rank formats. *Numerische Mathematik*, 141(3):743–789, March 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-1017-8.

Novati:2014:NAF

[Nov14] P. Novati. Numerical approximation to the fractional derivative operator. *Numerische Mathematik*, 127(3):539–566, July 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0596-7.

Nguyen:2015:CAF

[NP15] Giang T. Nguyen and Federico Poloni. Componentwise accurate fluid queue computations using doubling algorithms. *Numerische*

Mathematik, 130(4):763–792, August 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0675-4.

Neitzel:2019:SCA

[NPVW19] Ira Neitzel, Konstantin Pieper, Boris Vexler, and Daniel Walter. A sparse control approach to optimal sensor placement in PDE-constrained parameter estimation problems. *Numerische Mathematik*, 143(4):943–984, December 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01073-3.

Neuenkirch:2014:FOS

[NS14] Andreas Neuenkirch and Lukasz Szpruch. First order strong approximations of scalar SDEs defined in a domain. *Numerische Mathematik*, 128(1):103–136, September 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0606-4.

Nobile:2016:CQO

[NTT16] F. Nobile, L. Tamellini, and R. Tempone. Convergence of quasi-optimal sparse-grid approximation of Hilbert-space-valued functions: application to random elliptic PDEs. *Numerische Mathematik*, 134(2):343–388, October 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0773-y; http://link.springer.com/article/10.1007/s00211-015-0773-y.

Nobile:2018:SAM

[NTW18] Fabio Nobile, Raúl Tempone, and Sören Wolfers. Sparse approximation of multilinear problems with applications to kernel-based methods in UQ. *Numerische Mathematik*, 139(1):247–280, May 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0932-4.

Neitzel:2012:PEE

[NV12] Ira Neitzel and Boris Vexler. A priori error estimates for space–time finite element discretization of semilinear parabolic optimal control problems. *Numerische Mathematik*, 120(2):

345–386, February 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=2&spage=345.

Nochetto:2010:PEA

[NvPZ10] Ricardo H. Nochetto, Tobias von Petersdorff, and Chen-Song Zhang. A posteriori error analysis for a class of integral equations and variational inequalities. *Numerische Mathematik*, 116(3):519–552, September 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=3&spage=519.

Neitzel:2018:PLL

[NW18] I. Neitzel and W. Wollner. A priori L^2-discretization error estimates for the state in elliptic optimization problems with pointwise inequality state constraints. *Numerische Mathematik*, 138(2):273–299, February 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0906-6.

Nochetto:2019:PRC

[NZ19] Ricardo H. Nochetto and Wujun Zhang. Pointwise rates of convergence for the Oliker–Prussner method for the Monge–Ampère equation. *Numerische Mathematik*, 141(1):253–288, January 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0988-9.

Ovcharova:2017:CRA

[OB17] Nina Ovcharova and Lothar Banz. Coupling regularization and adaptive hp-BEM for the solution of a delamination problem. *Numerische Mathematik*, 137(2):303–337, October 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0879-5.

Olson:2018:FBA

[OLOV18] Derek Olson, Xingjie Li, Christoph Ortner, and Brian Van Koten. Force-based atomistic/continuum blending for multilattices. *Numerische Mathematik*, 140(3):703–754, November 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

URL https://link.springer.com/article/10.1007/s00211-018-0979-x.

Olver:2010:SGO

[Olv10] Sheehan Olver. Shifted GMRES for oscillatory integrals. *Numerische Mathematik*, 114(4):607–628, February 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=114&issue=4&spage=607.

Olver:2012:GFS

[Olv12] Sheehan Olver. A general framework for solving Riemann–Hilbert problems numerically. *Numerische Mathematik*, 122 (2):305–340, October 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=2&spage=305.

Okayama:2013:EEE

[OMS13] Tomoaki Okayama, Takayasu Matsuo, and Masaaki Sugihara. Error estimates with explicit constants for Sinc approximation, Sinc quadrature and Sinc indefinite integration. *Numerische Mathematik*, 124(2):361–394, June 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0515-y.

Of:2015:ESF

[OPS15] G. Of, T. X. Phan, and O. Steinbach. An energy space finite element approach for elliptic Dirichlet boundary control problems. *Numerische Mathematik*, 129(4):723–748, April 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0653-x.

Olshanskii:2010:FEM

[OR10] Maxim A. Olshanskii and Arnold Reusken. A finite element method for surface PDEs: matrix properties. *Numerische Mathematik*, 114(3):491–520, January 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=114&issue=3&spage=491.

Offner:2013:SCO

[ÖS13] Philipp Öffner and Thomas Sonar. Spectral convergence for orthogonal polynomials on triangles. *Numerische Mathematik*, 124 (4):701–721, August 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0530-z`.

Of:2014:ECF

[OS14] G. Of and O. Steinbach. On the ellipticity of coupled finite element and one-equation boundary element methods for boundary value problems. *Numerische Mathematik*, 127(3):567–593, July 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0593-x`.

Ostermann:2019:TET

[OS19] Alexander Ostermann and Chunmei Su. Two exponential-type integrators for the "good" Boussinesq equation. *Numerische Mathematik*, 143(3):683–712, November 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-019-01064-4`.

Okayama:2013:SMA

[OTMS13] Tomoaki Okayama, Ken'ichiro Tanaka, Takayasu Matsuo, and Masaaki Sugihara. DE-Sinc methods have almost the same convergence property as SE–Sinc methods even for a family of functions fitting the SE–Sinc methods. *Numerische Mathematik*, 125(3):511–543, November 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0540-x`.

Ortner:2011:PEE

[OW11] C. Ortner and W. Wollner. A priori error estimates for optimal control problems with pointwise constraints on the gradient of the state. *Numerische Mathematik*, 118(3): 587–600, July 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=3&spage=587`.

Owen:2016:CEQ

[Owe16] Art B. Owen. A constraint on extensible quadrature rules. *Numerische Mathematik*, 132(3):511–518, March 2016. CO-

DEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-015-0724-7`.

Oksa:2017:AQC

[OYV17] Gabriel Oksa, Yusaku Yamamoto, and Marián Vajtersic. Asymptotic quadratic convergence of the serial block-Jacobi EVD algorithm for Hermitian matrices. *Numerische Mathematik*, 136(4): 1071–1095, August 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Oswald:2017:RRS

[OZ17] Peter Oswald and Weiqi Zhou. Random reordering in SOR-type methods. *Numerische Mathematik*, 135(4):1207–1220, April 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s00211-016-0829-7; http://link.springer.com/article/10.1007/s00211-016-0829-7`. See correction [OZ23].

Oswald:2023:CRR

[OZ23] Peter Oswald and Weiqi Zhou. Correction: Random reordering in SOR-type methods. *Numerische Mathematik*, 154(3-4):521–525, August 2023. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-023-01365-9`.

Peterseim:2013:FEN

[PC13] Daniel Peterseim and Carsten Carstensen. Finite element network approximation of conductivity in particle composites. *Numerische Mathematik*, 124(1):73–97, May 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-012-0509-1`.

Pinto:2018:CLT

[PCCC18] Martin Campos Pinto, José A. Carrillo, Frédérique Charles, and Young-Pil Choi. Convergence of a linearly transformed particle method for aggregation equations. *Numerische Mathematik*, 139(4):743–793, August 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-018-0958-2; https://link.springer.com/content/pdf/10.1007/s00211-018-0958-2.pdf`.

Petcu:2012:EDP

[Pet12] Madalina Petcu. Exponential decay of the power spectrum and finite dimensionality for solutions of the three dimensional primitive equations. *Numerische Mathematik*, 120(1): 89–116, January 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=1&spage=89.

Pearson:2017:FIP

[PG17] John W. Pearson and Jacek Gondzio. Fast interior point solution of quadratic programming problems arising from PDE-constrained optimization. *Numerische Mathematik*, 137 (4):959–999, December 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0892-8; https://link.springer.com/content/pdf/10.1007/s00211-017-0892-8.pdf.

Peherstorfer:2018:CAM

[PGW18] Benjamin Peherstorfer, Max Gunzburger, and Karen Willcox. Convergence analysis of multifidelity Monte Carlo estimation. *Numerische Mathematik*, 139(3):683–707, July 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0945-7.

Pierre:2018:CEA

[Pie18] Morgan Pierre. Convergence of exponential attractors for a time semi-discrete reaction-diffusion equation. *Numerische Mathematik*, 139(1):121–153, May 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0937-z.

Pinelis:2018:AEM

[Pin18] Iosif Pinelis. An alternative to the Euler–Maclaurin summation formula: approximating sums by integrals only. *Numerische Mathematik*, 140(3):755–790, November 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0978-y.

Plaskota:2015:AIU

[Pla15] Leszek Plaskota. Automatic integration using asymptotically optimal adaptive Simpson quadrature. *Numerische Mathematik*, 131(1):173–198, September 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0684-3; http://link.springer.com/content/pdf/10.1007/s00211-014-0684-3.pdf.

Pearson:2018:RSP

[PPS18] John W. Pearson, Jennifer Pestana, and David J. Silvester. Refined saddle-point preconditioners for discretized Stokes problems. *Numerische Mathematik*, 138(2):331–363, February 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0908-4; https://link.springer.com/content/pdf/10.1007/s00211-017-0908-4.pdf.

Pranic:2013:RRO

[PR13] Miroslav S. Pranić and Lothar Reichel. Recurrence relations for orthogonal rational functions. *Numerische Mathematik*, 123(4):629–642, April 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0502-8.

Pruitt:2014:LTS

[Pru14] Michael Pruitt. Large time step maximum norm regularity of L-stable difference methods for parabolic equations. *Numerische Mathematik*, 128(3):551–587, November 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0617-1.

Pechstein:2011:AFM

[PS11] Clemens Pechstein and Robert Scheichl. Analysis of FETI methods for multiscale PDEs. Part II: interface variation. *Numerische Mathematik*, 118(3):485–529, July 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=3&spage=485.

Park:2013:QME

[PS13] Chunjae Park and Dongwoo Sheen. A quadrilateral Morley element for biharmonic equations. *Numerische Mathematik*, 124 (2):395–413, June 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0517-9.

Pejcev:2016:EBG

[PS16] Aleksandar V. Pejcev and Miodrag M. Spalević. The error bounds of Gauss–Radau quadrature formulae with Bernstein–Szegő weight functions. *Numerische Mathematik*, 133(1):177–201, May 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0740-7.

Pechstein:2017:TMR

[PS17a] Astrid S. Pechstein and Joachim Schöberl. The TDNNS method for Reissner–Mindlin plates. *Numerische Mathematik*, 137(3):713–740, November 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0883-9; https://link.springer.com/content/pdf/10.1007/s00211-017-0883-9.pdf.

Pozzi:2017:CSF

[PS17b] Paola Pozzi and Björn Stinner. Curve shortening flow coupled to lateral diffusion. *Numerische Mathematik*, 135(4):1171–1205, April 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0828-8; http://link.springer.com/article/10.1007/s00211-016-0828-8.

Pechstein:2018:ATM

[PS18] Astrid S. Pechstein and Joachim Schöberl. An analysis of the TDNNS method using natural norms. *Numerische Mathematik*, 139(1):93–120, May 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0933-3; https://link.springer.com/content/pdf/10.1007/s00211-017-0933-3.pdf.

Pazoto:2010:USN

[PSV10] A. F. Pazoto, M. Sepúlveda, and O. Vera Villagrán. Uniform stabilization of numerical schemes for the critical generalized Korteweg–de Vries equation with damping. *Numerische Mathematik*, 116(2):317–356, August 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=2&spage=317.

Papez:2018:ELA

[PSV18] J. Papez, Z. Strakos, and M. Vohralík. Estimating and localizing the algebraic and total numerical errors using flux reconstructions. *Numerische Mathematik*, 138(3):681–721, March 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0915-5.

Pytlak:2010:PCG

[PT10] R. Pytlak and T. Tarnawski. Preconditioned conjugate gradient algorithms for nonconvex problems with box constraints. *Numerische Mathematik*, 116(1):149–175, July 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=1&spage=149.

Pham:2012:DDM

[PT12] Duong Pham and Thanh Tran. A domain decomposition method for solving the hypersingular integral equation on the sphere with spherical splines. *Numerische Mathematik*, 120(1):117–151, January 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=1&spage=117.

Pham:2014:SEP

[PT14] T. D. Pham and T. Tran. Strongly elliptic pseudodifferential equations on the sphere with radial basis functions. *Numerische Mathematik*, 128(3):589–614, November 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0614-4.

Pollock:2018:UDS

[PZ18] Sara Pollock and Yunrong Zhu. Uniqueness of discrete solutions of nonmonotone PDEs without a globally fine mesh condition. *Numerische Mathematik*, 139(4):845–865, August 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0956-4.

Quarteroni:2011:AFV

[QRB11] Alfio Quarteroni and Ricardo Ruiz-Baier. Analysis of a finite volume element method for the Stokes problem. *Numerische Mathematik*, 118(4):737–764, August 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=4&spage=737.

Qiu:2019:TDB

[QRSZ19] Tianyu Qiu, Alexander Rieder, Francisco-Javier Sayas, and Shougui Zhang. Time-domain boundary integral equation modeling of heat transmission problems. *Numerische Mathematik*, 143(1):223–259, September 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01040-y; https://link.springer.com/content/pdf/10.1007/s00211-019-01040-y.pdf.

Rademacher:2019:MMA

[Rad19] Andreas Rademacher. Mesh and model adaptivity for frictional contact problems. *Numerische Mathematik*, 142(3):465–523, July 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01044-8.

Rafiei:2011:RIF

[RB11] A. Rafiei and M. Bollhöfer. Robust incomplete factorization for nonsymmetric matrices. *Numerische Mathematik*, 118 (2):247–269, June 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=2&spage=247.

Reusken:2014:ATD

[RE14] Arnold Reusken and Patrick Esser. Analysis of time discretization methods for Stokes equations with a nonsmooth forcing term. *Numerische Mathematik*, 126(2):293–319, February 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0564-2.

Reichmann:2012:OST

[Rei12] O. Reichmann. Optimal space–time adaptive wavelet methods for degenerate parabolic PDEs. *Numerische Mathematik*, 121(2):337–365, June 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=2&spage=337.

Renac:2017:RHO

[Ren17] Florent Renac. A robust high-order Lagrange-projection like scheme with large time steps for the isentropic Euler equations. *Numerische Mathematik*, 135(2):493–519, February 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0807-0; http://link.springer.com/article/10.1007/s00211-016-0807-0.

Rozza:2013:RBA

[RHM13] Gianluigi Rozza, D. B. Phuong Huynh, and Andrea Manzoni. Reduced basis approximation and a posteriori error estimation for Stokes flows in parametrized geometries: roles of the inf-sup stability constants. *Numerische Mathematik*, 125(1):115–152, September 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0534-8.

Ramos:2015:NSS

[RI15] Alberto Gil C. P. Ramos and Arieh Iserles. Numerical solution of Sturm–Liouville problems via Fer streamers. *Numerische Mathematik*, 131(3):541–565, November 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0695-0.

Rieger:2019:PCI

[Rie19] Janosch Rieger. Provably convergent implementations of the subdivision algorithm for the computation of invariant objects. *Numerische Mathematik*, 142(1):149–165, May 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0997-8.

Roman:2017:SAM

[RMS17] Fabio Roman, Carla Manni, and Hendrik Speleers. Spectral analysis of matrices in Galerkin methods based on generalized B-splines with high smoothness. *Numerische Mathematik*, 135(1):169–216, January 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0796-z; http://link.springer.com/article/10.1007/s00211-016-0796-z.

Respaud:2011:ANC

[RS11] Thomas Respaud and Eric Sonnendrücker. Analysis of a new class of forward semi-Lagrangian schemes for the 1D Vlasov Poisson equations. *Numerische Mathematik*, 118(2):329–366, June 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=2&spage=329.

Rekatsinas:2018:OAW

[RS18] Nikolaos Rekatsinas and Rob Stevenson. An optimal adaptive wavelet method for first order system least squares. *Numerische Mathematik*, 140(1):191–237, September 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0961-7; https://link.springer.com/content/pdf/10.1007/s00211-018-0961-7.pdf.

Richter:2013:ENR

[RSV13] Thomas Richter, Andreas Springer, and Boris Vexler. Efficient numerical realization of discontinuous Galerkin methods for temporal discretization of parabolic problems. *Numerische Mathematik*, 124(1):151–182, May 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0511-7.

Runborg:2014:AHO

[Run14] Olof Runborg. Analysis of high order fast interface tracking methods. *Numerische Mathematik*, 128(2):339–375, October 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-014-0613-5`.

Rushai:2010:NSS

[Rus10] V. D. Rushai. Numerical solution of some partial differential equations by means of a deterministic method of approximate functional integration. *Numerische Mathematik*, 115(1):153–167, March 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=1&spage=153`.

Rosch:2012:PEE

[RW12] Arnd Rösch and Daniel Wachsmuth. A-posteriori error estimates for optimal control problems with state and control constraints. *Numerische Mathematik*, 120(4):733–762, April 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=4&spage=733`.

Rieger:2017:SIS

[RW17] Christian Rieger and Holger Wendland. Sampling inequalities for sparse grids. *Numerische Mathematik*, 136(2):439–466, June 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Stewart:2010:OCS

[SA10] David E. Stewart and Mihai Anitescu. Optimal control of systems with discontinuous differential equations. *Numerische Mathematik*, 114(4):653–695, February 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=114&issue=4&spage=653`.

Saibaba:2017:RMF

[SAI17] Arvind K. Saibaba, Alen Alexanderian, and Ilse C. F. Ipsen. Randomized matrix-free trace and log-determinant estimators.

Numerische Mathematik, 137(2):353–395, October 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-017-0880-z`.

Sauer:2017:PMS

[Sau17] Tomas Sauer. Prony's method in several variables. *Numerische Mathematik*, 136(2):411–438, June 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Sayas:2013:EEG

[Say13] Francisco-Javier Sayas. Energy estimates for Galerkin semidiscretizations of time domain boundary integral equations. *Numerische Mathematik*, 124(1):121–149, May 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-012-0506-4`.

Scott:2013:IBSa

[SB13a] Joseph K. Scott and Paul I. Barton. Interval bounds on the solutions of semi-explicit index-one DAEs. Part 1: analysis. *Numerische Mathematik*, 125(1):1–25, September 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0531-y`.

Scott:2013:IBSb

[SB13b] Joseph K. Scott and Paul I. Barton. Interval bounds on the solutions of semi-explicit index-one DAEs. Part 2: computation. *Numerische Mathematik*, 125(1):27–60, September 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0532-x`.

Schaback:2010:UMM

[Sch10] Robert Schaback. Unsymmetric meshless methods for operator equations. *Numerische Mathematik*, 114(4):629–651, February 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=114&issue=4&spage=629`.

Schweitzer:2011:MPP

[Sch11a] Marc Alexander Schweitzer. Multilevel particle-partition of unity method. *Numerische Mathematik*, 118(2):307–328, June 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=2&spage=307.

Schweitzer:2011:SEL

[Sch11b] Marc Alexander Schweitzer. Stable enrichment and local preconditioning in the particle-partition of unity method. *Numerische Mathematik*, 118(1):137–170, May 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=1&spage=137.

Schaback:2016:AWP

[Sch16] Robert Schaback. All well-posed problems have uniformly stable and convergent discretizations. *Numerische Mathematik*, 132(3):597–630, March 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0731-8.

Sun:2013:EMS

[SCHH13] Jian-Qing Sun, Xiang-Ke Chang, Yi He, and Xing-Biao Hu. An extended multistep Shanks transformation and convergence acceleration algorithm with their convergence and stability analysis. *Numerische Mathematik*, 125(4):785–809, December 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0549-1.

Spillane:2014:ARC

[SDH+14] N. Spillane, V. Dolean, P. Hauret, F. Nataf, C. Pechstein, and R. Scheichl. Abstract robust coarse spaces for systems of PDEs via generalized eigenproblems in the overlaps. *Numerische Mathematik*, 126(4):741–770, April 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0576-y.

Segura:2013:CCZ

[Seg13] Javier Segura. Computing the complex zeros of special functions. *Numerische Mathematik*, 124(4):723–752, August 2013.

CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0528-6.

Schiela:2011:IPA

[SG11] Anton Schiela and Andreas Günther. An interior point algorithm with inexact step computation in function space for state constrained optimal control. *Numerische Mathematik*, 119(2):373–407, October 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=2&spage=373.

Seidman:2012:FEA

[SG...12] Thomas I. Seidman, Matthias K. Gobbert, and David W. Trott .... Finite element approximation for time-dependent diffusion with measure-valued source. *Numerische Mathematik*, 122(4):709–723, December 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0474-8.

Schmidt:2017:AET

[SH17] Kersten Schmidt and Ralf Hiptmair. Asymptotic expansion techniques for singularly perturbed boundary integral equations. *Numerische Mathematik*, 137(2):397–415, October 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0881-y.

Sun:2018:QOC

[SH18] Pengtao Sun and Xuehai Huang. Quasi-optimal convergence rate for an adaptive hybridizable C^0 discontinuous Galerkin method for Kirchhoff plates. *Numerische Mathematik*, 139(4):795–829, August 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0953-7.

Sprung:2019:HOC

[SH19] Benjamin Sprung and Thorsten Hohage. Higher order convergence rates for Bregman iterated variational regularization of inverse problems. *Numerische Mathematik*, 141(1):215–252, January 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0987-x.

Sidi:2011:ACG

[Sid11a] Avram Sidi. Acceleration of convergence of general linear sequences by the Shanks transformation. *Numerische Mathematik*, 119(4):725–764, December 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=4&spage=725.

Sidje:2011:STT

[Sid11b] Roger B. Sidje. On the simultaneous tridiagonalization of two symmetric matrices. *Numerische Mathematik*, 118(3):549–566, July 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=3&spage=549.

Singler:2012:BPM

[Sin12] John R. Singler. Balanced POD for model reduction of linear PDE systems: convergence theory. *Numerische Mathematik*, 121(1):127–164, May 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=1&spage=127.

Storath:2019:SSD

[SKW19] Martin Storath, Lukas Kiefer, and Andreas Weinmann. Smoothing for signals with discontinuities using higher order Mumford–Shah models. *Numerische Mathematik*, 143(2):423–460, October 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01052-8.

Speleers:2016:EQI

[SM16] Hendrik Speleers and Carla Manni. Effortless quasi-interpolation in hierarchical spaces. *Numerische Mathematik*, 132(1):155–184, January 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0711-z.

Smyrlis:2010:MFM

[Smy10] Yiorgos-Sokratis Smyrlis. Mathematical foundation of the MFS for certain elliptic systems in linear elasticity. *Numerische Mathematik*, 115(2):319–340, April 2010. CODEN NUMMA7. ISSN

0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=2&spage=319.

Sorokina:2010:ISM

[Sor10] T. Sorokina. Intrinsic supersmoothness of multivariate splines. *Numerische Mathematik*, 116(3):421–434, September 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=3&spage=421.

Sousedik:2013:NBS

[Sou13] Bedrich Sousedík. Nested BDDC for a saddle-point problem. *Numerische Mathematik*, 125(4):761–783, December 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0548-2.

Schwab:2011:FEN

[SS11] Christoph Schwab and Rob Stevenson. Fast evaluation of nonlinear functionals of tensor product wavelet expansions. *Numerische Mathematik*, 119(4):765–786, December 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=4&spage=765.

Saad:2015:CFV

[SS15] Bilal Saad and Mazen Saad. A combined finite volume-nonconforming finite element scheme for compressible two phase flow in porous media. *Numerische Mathematik*, 129(4):691–722, April 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0651-z.

Smears:2016:DGF

[SS16] Iain Smears and Endre Süli. Discontinuous Galerkin finite element methods for time-dependent Hamilton–Jacobi-Bellman equations with Cordes coefficients. *Numerische Mathematik*, 133(1):141–176, May 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0741-6.

Schlichting:2018:AIU

[SS18] André Schlichting and Christian Seis. Analysis of the implicit upwind finite volume scheme with rough coefficients. *Numerische Mathematik*, 139(1):155–186, May 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0935-1.

SanMartin:2012:MLG

[SSS12] Jorge San Martín, Jean-François Scheid, and Loredana Smaranda. A modified Lagrange–Galerkin method for a fluid-rigid system with discontinuous density. *Numerische Mathematik*, 122(2):341–382, October 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=2&spage=341.

Shank:2016:ELR

[SSS16] Stephen D. Shank, Valeria Simoncini, and Daniel B. Szyld. Efficient low-rank solution of generalized Lyapunov equations. *Numerische Mathematik*, 134(2):327–342, October 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0777-7; http://link.springer.com/article/10.1007/s00211-015-0777-7.

Schroder:2016:BEA

[ST16] Christian Schröder and Leo Taslaman. Backward error analysis of the shift-and-invert Arnoldi algorithm. *Numerische Mathematik*, 133(4):819–843, August 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0759-9; http://link.springer.com/content/pdf/10.1007/s00211-015-0759-9.pdf.

Stephan:2018:CTP

[ST18] Ernst P. Stephan and Matthias T. Teltscher. Collocation with trigonometric polynomials for integral equations to the mixed boundary value problem. *Numerische Mathematik*, 140(1):153–190, September 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0960-8.

Stenberg:2010:NMF

[Ste10] Rolf Stenberg. A nonstandard mixed finite element family. *Numerische Mathematik*, 115(1):131–139, March 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=1&spage=131.

Steinbach:2014:BEM

[Ste14] O. Steinbach. Boundary element methods for variational inequalities. *Numerische Mathematik*, 126(1):173–197, January 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0554-4.

Stern:2015:BSP

[Ste15] Ari Stern. Banach space projections and Petrov–Galerkin estimates. *Numerische Mathematik*, 130(1):125–133, May 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0658-5.

Stiemer:2010:GMM

[Sti10] Marcus Stiemer. A Galerkin method for mixed parabolic-elliptic partial differential equations. *Numerische Mathematik*, 116(3):435–462, September 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=3&spage=435.

Strobach:2015:COO

[Str15] Peter Strobach. Constrained optimization of the overdetermined Zimmermann compressor for nonorthogonal joint matrix diagonalization. *Numerische Mathematik*, 129(3):563–586, March 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0645-x.

Sun:2016:MFQ

[Sun16] Jiguang Sun. A mixed FEM for the quad-curl eigenvalue problem. *Numerische Mathematik*, 132(1):185–200, January 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0708-7.

Spigler:2012:SFM

[SV12] Renato Spigler and Marco Vianello. The 'phase function' method to solve second-order asymptotically polynomial differential equations. *Numerische Mathematik*, 121 (3):565–586, July 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=3&spage=565.

Sauter:2013:GMR

[SV13] S. Sauter and A. Veit. A Galerkin method for retarded boundary integral equations with smooth and compactly supported temporal basis functions. *Numerische Mathematik*, 123(1):145–176, January 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0483-7.

Sauter:2016:ATD

[SV16] S. Sauter and A. Veit. Adaptive time discretization for retarded potentials. *Numerische Mathematik*, 132(3):569–595, March 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0726-5.

Schumaker:2011:SST

[SW11a] Larry L. Schumaker and Lujun Wang. Spline spaces on TR-meshes with hanging vertices. *Numerische Mathematik*, 118 (3):531–548, July 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=3&spage=531.

Steinbach:2011:SBE

[SW11b] O. Steinbach and M. Windisch. Stable boundary element domain decomposition methods for the Helmholtz equation. *Numerische Mathematik*, 118(1):171–195, May 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=1&spage=171.

Schumacher:2019:VCD

[SW19] Henrik Schumacher and Max Wardetzky. Variational convergence of discrete minimal surfaces. *Numerische Mathematik*, 141(1): 173–213, January 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0993-z.

Si:2016:USE

[SWS16] Zhiyong Si, Jilu Wang, and Weiwei Sun. Unconditional stability and error estimates of modified characteristics FEMs for the Navier–Stokes equations. *Numerische Mathematik*, 134 (1):139–161, September 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0767-9; http://link.springer.com/article/10.1007/s00211-015-0767-9.

Szyld:2013:LCA

[SX13] Daniel B. Szyld and Fei Xue. Local convergence analysis of several inexact Newton-type algorithms for general nonlinear eigenvalue problems. *Numerische Mathematik*, 123(2):333–362, February 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0489-1.

Szyld:2015:LCNa

[SX15a] Daniel B. Szyld and Fei Xue. Local convergence of Newton-like methods for degenerate eigenvalues of nonlinear eigenproblems. I. Classical algorithms. *Numerische Mathematik*, 129(2): 353–381, February 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0639-8.

Szyld:2015:LCNb

[SX15b] Daniel B. Szyld and Fei Xue. Local convergence of Newton-like methods for degenerate eigenvalues of nonlinear eigenproblems: II. Accelerated algorithms. *Numerische Mathematik*, 129(2): 383–403, February 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0640-2.

Scholz:2017:AEW

[SY17] Stephan Scholz and Harry Yserentant. On the approximation of electronic wavefunctions by anisotropic Gauss and Gauss–Hermite functions. *Numerische Mathematik*, 136(3):841–874, July 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Shi:2013:ERA

[SZ13] Zhongci Shi and Xuying Zhao. Error reduction of the adaptive conforming and nonconforming finite element methods with red-green refinement. *Numerische Mathematik*, 123(3):553–584, March 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-012-0495-3`.

Sun:2012:FDM

[SzS12] Weiwei Sun and Zhi zhong Sun. Finite difference methods for a nonlinear and strongly coupled heat and moisture transport system in textile materials. *Numerische Mathematik*, 120(1):153–187, January 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=1&spage=153`.

Takacs:2015:RAO

[Tak15] Stefan Takacs. A robust all-at-once multigrid method for the Stokes control problem. *Numerische Mathematik*, 130(3):517–540, July 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-014-0674-5`.

Tanaka:2013:SMA

[TOMS13] Ken'ichiro Tanaka, Tomoaki Okayama, Takayasu Matsuo, and Masaaki Sugihara. DE-Sinc methods have almost the same convergence property as SE–Sinc methods even for a family of functions fitting the SE–Sinc methods. *Numerische Mathematik*, 125(3):545–568, November 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-013-0541-9`.

Towers:2018:COG

[Tow18] John D. Towers. Convergence via OSLC of the Godunov scheme for a scalar conservation law with time and space flux discontinuities. *Numerische Mathematik*, 139(4):939–969, August 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-018-0957-3.

Teckentrup:2013:FAM

[TSGU13] A. L. Teckentrup, R. Scheichl, M. B. Giles, and E. Ullmann. Further analysis of multilevel Monte Carlo methods for elliptic PDEs with random coefficients. *Numerische Mathematik*, 125(3):569–600, November 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0546-4.

Tregubov:2015:GMS

[TT15] I. Tregubov and T. Tran. A Galerkin method with spherical splines for the shallow water equations on a sphere: error analysis. *Numerische Mathematik*, 129(4):783–814, April 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0654-9.

Tu:2011:TLB

[Tu11] Xuemin Tu. A three-level BDDC algorithm for a saddle point problem. *Numerische Mathematik*, 119(1):189–217, September 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=1&spage=189.

Tone:2015:LTD

[TWW15] Florentina Tone, Xiaoming Wang, and Djoko Wirosoetisno. Long-time dynamics of 2 d double-diffusive convection: analysis and/of numerics. *Numerische Mathematik*, 130(3):541–566, July 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0670-9.

Tran:2017:AQO

[TWZ17] Hoang Tran, Clayton G. Webster, and Guannan Zhang. Analysis of quasi-optimal polynomial approximations for parameterized PDEs with deterministic and stochastic coefficients. *Numerische Mathematik*, 137(2):451–493, October 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0878-6.

Vandebril:2011:UUS

[VD11] Raf Vandebril and Gianna M. Del Corso. A unification of unitary similarity transforms to compressed representations. *Numerische Mathematik*, 119(4):641–665, December 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=119&issue=4&spage=641.

Venel:2011:NSC

[Ven11] Juliette Venel. A numerical scheme for a class of sweeping processes. *Numerische Mathematik*, 118(2):367–400, June 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=2&spage=367.

Verwer:2010:RKM

[Ver10] J. G. Verwer. Runge–Kutta methods and viscous wave equations. *Numerische Mathematik*, 115(3):485–507, May 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=3&spage=485.

Vermeeren:2017:MEV

[Ver17] Mats Vermeeren. Modified equations for variational integrators. *Numerische Mathematik*, 137(4):1001–1037, December 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0896-4.

Vico:2014:BIE

[VGG14] Felipe Vico, Leslie Greengard, and Zydrunas Gimbutas. Boundary integral equation analysis on the sphere. *Numerische Mathematik*, 128(3):463–487, November 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0619-z.

Barel:2010:IDS

[VVVF10] Marc Van Barel, Raf Vandebril, Paul Van Dooren, and Katrijn Frederix. Implicit double shift QR-algorithm for companion matrices. *Numerische Mathematik*, 116(2):177–212, August 2010.

CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=2&spage=177.

vanyen:2014:ALS

[vyKS14] Romain Nguyen van yen, Dmitry Kolomenskiy, and Kai Schneider. Approximation of the Laplace and Stokes operators with Dirichlet boundary conditions through volume penalization: a spectral viewpoint. *Numerische Mathematik*, 128(2):301–338, October 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0610-8.

Wachsmuth:2017:CAC

[Wac17] Gerd Wachsmuth. Conforming approximation of convex functions with the finite element method. *Numerische Mathematik*, 137(3):741–772, November 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0884-8.

Wang:2012:ESO

[Wan12] Xiaoming Wang. An efficient second order in time scheme for approximating long time statistical properties of the two dimensional Navier–Stokes equations. *Numerische Mathematik*, 121(4):753–779, August 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=4&spage=753.

Wang:2018:USC

[Wan18] Jilu Wang. Unconditional stability and convergence of Crank–Nicolson Galerkin FEMs for a nonlinear Schrödinger–Helmholtz system. *Numerische Mathematik*, 139(2):479–503, June 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0944-0.

Wulff:2016:RKT

[WE16] Claudia Wulff and Chris Evans. Runge–Kutta time semidiscretizations of semilinear PDEs with non-smooth data. *Numerische Mathematik*, 134(2):413–440, October 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

URL http://link.springer.com/article/10.1007/s00211-015-0776-8; http://link.springer.com/content/pdf/10.1007/s00211-015-0776-8.pdf.

Weisser:2011:REE

[Wei11] Steffen Weißer. Residual error estimate for BEM-based FEM on polygonal meshes. *Numerische Mathematik*, 118(4): 765–788, August 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=118&issue=4&spage=765.

Wendland:2010:MAS

[Wen10] Holger Wendland. Multiscale analysis in Sobolev spaces on bounded domains. *Numerische Mathematik*, 116(3):493–517, September 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=3&spage=493.

Wilkins:2013:MBM

[WG13] Gautam Wilkins and Ming Gu. A modified Brent's method for finding zeros of functions. *Numerische Mathematik*, 123(1): 177–188, January 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-012-0480-x.

Wang:2014:DGM

[WHC14] Fei Wang, Weimin Han, and Xiaoliang Cheng. Discontinuous Galerkin methods for solving a quasistatic contact problem. *Numerische Mathematik*, 126(4):771–800, April 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0574-0.

Williams:2019:ADG

[Wil19] David M. Williams. An analysis of discontinuous Galerkin methods for the compressible Euler equations: entropy and L_2 stability. *Numerische Mathematik*, 141(4):1079–1120, April 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01027-9.

Wu:2010:ASE

[WMS10] Fuke Wu, Xuerong Mao, and Lukas Szpruch. Almost sure exponential stability of numerical solutions for stochastic delay differential equations. *Numerische Mathematik*, 115(4): 681–697, June 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=4&spage=681.

Wormell:2019:SGM

[Wor19] Caroline Wormell. Spectral Galerkin methods for transfer operators in uniformly expanding dynamics. *Numerische Mathematik*, 142(2):421–463, June 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01031-z.

Wu:2019:PPH

[WS19] Kailiang Wu and Chi-Wang Shu. Provably positive high-order schemes for ideal magnetohydrodynamics: analysis on general meshes. *Numerische Mathematik*, 142(4):995–1047, August 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01042-w.

Wang:2012:SNR

[WX12] Feng Wang and Xuejun Xu. Some new residual-based a posteriori error estimators for the mortar finite element methods. *Numerische Mathematik*, 120(3):543–571, March 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=3&spage=543.

Wheeler:2012:MFM

[WXY12] Mary Wheeler, Guangri Xue, and Ivan Yotov. A multipoint flux mixed finite element method on distorted quadrilaterals and hexahedra. *Numerische Mathematik*, 121(1): 165–204, May 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=1&spage=165.

Wang:2010:PSI

[WZ10] Wansheng Wang and Chengjian Zhang. Preserving stability implicit Euler method for nonlinear Volterra and neutral functional differential equations in Banach space. *Numerische Mathematik*, 115(3):451–474, May 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=115&issue=3&spage=451`.

Wang:2013:AEF

[WZH13] Haiyong Wang, Lun Zhang, and Daan Huybrechs. Asymptotic expansions and fast computation of oscillatory Hilbert transforms. *Numerische Mathematik*, 123(4):709–743, April 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-012-0501-9`.

Xiang:2010:EBA

[XCW10] Shuhuang Xiang, Xiaojun Chen, and Haiyong Wang. Error bounds for approximation in Chebyshev points. *Numerische Mathematik*, 116(3):463–491, September 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=116&issue=3&spage=463`.

Xue:2017:HAD

[XL17] Jungong Xue and Ren-Cang Li. Highly accurate doubling algorithms for M-matrix algebraic Riccati equations. *Numerische Mathematik*, 135(3):733–767, March 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s00211-016-0815-0`; `http://link.springer.com/article/10.1007/s00211-016-0815-0`.

Xue:2012:ASMb

[XXL12a] Jungong Xue, Shufang Xu, and Ren-Cang Li. Accurate solutions of M-matrix algebraic Riccati equations. *Numerische Mathematik*, 120(4):671–700, April 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=4&spage=671`.

Xue:2012:ASMa

[XXL12b] Jungong Xue, Shufang Xu, and Ren-Cang Li. Accurate solutions of M-matrix Sylvester equations. *Numerische Mathematik*, 120(4):639–670, April 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=120&issue=4&spage=639.

Xu:2010:ALQ

[XZ10] Jinchao Xu and Qingsong Zou. Analysis of linear and quadratic simplicial finite volume methods for elliptic equations. *Numerische Mathematik*, 114(3):469–492, January 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=114&issue=3&spage=469.

Yuan:2014:SCM

[YBTB14] Jing Yuan, Egil Bae, Xue-Cheng Tai, and Yuri Boykov. A spatially continuous max-flow and min-cut framework for binary labeling problems. *Numerische Mathematik*, 126(3):559–587, March 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0569-x.

Yang:2013:DGM

[YS13] Yang Yang and Chi-Wang Shu. Discontinuous Galerkin method for hyperbolic equations involving δ-singularities: negative-order norm error estimates and applications. *Numerische Mathematik*, 124(4):753–781, August 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0526-8.

Yin:2014:CFM

[YWY14] Li Yin, Jiming Wu, and Yanzhong Yao. A cell functional minimization scheme for domain decomposition method on non-orthogonal and non-matching meshes. *Numerische Mathematik*, 128(4):773–804, December 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0623-3.

Zampini:2013:BNN

[Zam13] Stefano Zampini. Balancing Neumann–Neumann methods for the cardiac bidomain model. *Numerische Mathematik*, 123(2): 363–393, February 2013. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-012-0488-2`.

Zhang:2014:HOS

[ZBB14] Qinghui Zhang, Uday Banerjee, and Ivo Babuska. Higher order stable generalized finite element method. *Numerische Mathematik*, 128(1):1–29, September 2014. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-014-0609-1`.

Zhao:2018:RIN

[ZBJ18] Zhi Zhao, Zheng-Jian Bai, and Xiao-Qing Jin. A Riemannian inexact Newton–CG method for constructing a nonnegative matrix with prescribed realizable spectrum. *Numerische Mathematik*, 140(4):827–855, December 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `https://link.springer.com/article/10.1007/s00211-018-0982-2`.

Zhu:2017:IAP

[ZDQ17] Shengfeng Zhu, Luca Dedè, and Alfio Quarteroni. Isogeometric analysis and proper orthogonal decomposition for parabolic problems. *Numerische Mathematik*, 135(2):333–370, February 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/accesspage/article/10.1007/s00211-016-0802-5; http://link.springer.com/article/10.1007/s00211-016-0802-5`.

Zhang:2016:ADG

[Zha16a] Sheng Zhang. Analysis of a discontinuous Galerkin method for the bending problem of Koiter shell. *Numerische Mathematik*, 133 (2):333–370, June 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://link.springer.com/article/10.1007/s00211-015-0747-0`.

Zhang:2016:SFE

[Zha16b] Shuo Zhang. Stable finite element pair for Stokes problem and discrete Stokes complex on quadrilateral grids. *Numerische Mathematik*, 133(2):371–408, June 2016. CODEN NUMMA7. ISSN

0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-015-0749-y.

Zhang:2018:RDF

[Zha18] Shuo Zhang. Regular decomposition and a framework of order reduced methods for fourth order problems. *Numerische Mathematik*, 138(1):241–271, January 2018. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-017-0902-x.

Zeng:2012:CQM

[ZLL+12] Wei Zeng, Lok Ming Lui, Feng Luo, Tony Fan-Cheong Chan, Shing-Tung Yau, et al. Computing quasiconformal maps using an auxiliary metric and discrete curvature flow. *Numerische Mathematik*, 121(4):671–703, August 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=4&spage=671.

Zhang:2016:SWC

[ZRK16] Zhongqiang Zhang, Boris Rozovskii, and George Em Karniadakis. Strong and weak convergence order of finite element methods for stochastic PDEs with spatial white noise. *Numerische Mathematik*, 134(1):61–89, September 2016. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-015-0768-8; http://link.springer.com/article/10.1007/s00211-015-0768-8.

Zhang:2012:MEP

[ZS12] Xiangxiong Zhang and Chi-Wang Shu. A minimum entropy principle of high order schemes for gas dynamics equations. *Numerische Mathematik*, 121(3):545–563, July 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=121&issue=3&spage=545.

Zhang:2014:EET

[ZS14] Qiang Zhang and Chi-Wang Shu. Error estimates for the third order explicit Runge–Kutta discontinuous Galerkin method for a linear hyperbolic equation in one-dimension with discontinuous initial data. *Numerische Mathematik*, 126(4):703–740, April 2014.

CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-013-0573-1.

Zhou:2017:FVM

[ZS17] Guanyu Zhou and Norikazu Saito. Finite volume methods for a Keller–Segel system: discrete energy, error estimates and numerical blow-up analysis. *Numerische Mathematik*, 135(1):265–311, January 2017. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/accesspage/article/10.1007/s00211-016-0793-2; http://link.springer.com/article/10.1007/s00211-016-0793-2.

Zelati:2012:MAT

[ZT12] Michele Coti Zelati and Florentina Tone. Multivalued attractors and their approximation: applications to the Navier–Stokes equations. *Numerische Mathematik*, 122(3):421–441, November 2012. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=122&issue=3&spage=421.

Zou:2011:HEE

[ZVKG11] Qingsong Zou, Andreas Veeser, Ralf Kornhuber, and Carsten Gräser. Hierarchical error estimates for the energy functional in obstacle problems. *Numerische Mathematik*, 117(4):653–677, April 2011. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=117&issue=4&spage=653.

Zhong:2019:RIP

[ZWJ19] Min Zhong, Wei Wang, and Qinian Jin. Regularization of inverse problems by two-point gradient methods in Banach spaces. *Numerische Mathematik*, 143(3):713–747, November 2019. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL https://link.springer.com/article/10.1007/s00211-019-01068-0.

Zhang:2015:VCF

[ZZ15] Zhimin Zhang and Qingsong Zou. Vertex-centered finite volume schemes of any order over quadrilateral meshes for elliptic boundary value problems. *Numerische Mathematik*, 130(2):363–393, June 2015. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL http://link.springer.com/article/10.1007/s00211-014-0664-7.