

List of Publications of Dr. Bradji, Abdallah

Last update Friday April 22, 2016

1 Articles in Journals

1. Convergence analysis of some first order and second order time accurate gradient schemes for semilinear second order hyperbolic equations.
Accepted March 31-2016 in Numerical Methods for Partial Differential Equations.
2. A theoretical analysis for a new finite volume scheme for a linear Schrödinger evolution equation on general nonconforming spatial meshes.
Numerical Functional Analysis and Optimization, 36/5, 590–623, 2015.
3. A theoretical analysis of a new second order finite volume approximation based on a low–order scheme using general admissible spatial meshes for the one dimensional wave equation.
JMAA (Journal in Mathematical Analysis and Applications), 422/1, 109–147, 2015..
4. A full analysis of a new second order finite volume approximation on a low order scheme using general admissible spatial meshes for the unsteady one dimensional heat equation.
JMAA (Journal in Mathematical Analysis and Applications), 416/1, 258–288, 2014.
5. Some new error estimates for finite element methods for the acoustic wave equation using the Newmark method.
With Jürgen Fuhrmann. Mathematica Bohemica, 139/2, 125–136, 2014
6. A new error estimate for a Crank–Nicolson finite element scheme for parabolic equations.
With Jürgen Fuhrmann. Mathematica Bohemica, 139/2, 113–124, 2014.
7. An analysis of a second order time accurate scheme for a finite volume method for parabolic equations on general nonconforming multidimensional spatial meshes.
Applied Mathematics and Computation, 219/11, 6354–6371, 2013.
8. Convergence analysis of some high–order time accurate schemes for a finite volume method for second order hyperbolic equations on general nonconforming multidimensional spatial meshes.
Numerical Methods for Partial Differential Equations, 29/4, 1278–1321, 2013.
9. A theoretical analysis of a new finite volume scheme for second order hyperbolic equations on general nonconforming multidimensional spatial meshes.
Numerical Methods for Partial Differential Equations, 29/1, 1–39, 2013.
10. Some abstract error estimates of a finite volume scheme for a nonstationary heat equation on general nonconforming multidimensional spatial meshes.
With J. Fuhrmann. "Applications of Mathematics, Praha", 58/1, 1–38, 2013.
11. Error estimates of the discretization of linear parabolic equations on general nonconforming spatial grids.
With J. Fuhrmann. Comptes rendus - Mathématique 348/19-20 , 1119–1122, 2010.
12. Some simples error estimates for finite volume approximation of parabolic equations.
Comptes Rendus de l'Académie de Sciences, Paris, 346/9-10 pp. 571-574, 2008.

13. Discretization of the coupled heat and electrical diffusion problems by the finite element and the finite volume methods.
With R. Herbin. *IMA Journal of Numerical Analysis*, **28** (3), 469–495, 2008.
14. Optimal defect corrections on composite nonmatching finite element meshes.
With A.-S. Chibi. *IMA Journal of Numerical Analysis*, **27** (4), 765–780, 2007
15. Error Estimate for Finite Volume Approximate Solutions of Some Oblique Derivative Boundary Problems.
With T. Gallouët. *International Journal on Finite Volumes*. **3** (2), 35 pages (electronic), 2006
16. Improved Convergence Order for Finite Volume Solutions. Part I: 1D Problems.
With B. Atfeh. *Arab Journal of Mathematical Sciences*. **11** (1), 1–30, 2005.
17. Improved Convergence Order for Finite Volume Solutions. Part II: 2D Problems.
With B. Atfeh. *Arab Journal of Mathematical Sciences*. **11** (2), 1–53, 2005.

2 Articles in Peer Reviewed Proceedings

1. Note on a new piecewise linear finite element approximation of order four for one dimensional second order elliptic problems on general meshes.
Proceedings of MAMERN VI 2015, 175–185 (2015), B. Amaziane et al. (Eds), ISBN 978-84-338-5783-5
2. Some discrete a priori estimates for a finite volume scheme appearing in the discretization of a time dependent Joule heating system
Proceedings of MAMERN VI 2015, 187–197 (2015), B. Amaziane et al. (Eds), ISBN 978-84-338-5783-5
3. A convergence order for a finite volume scheme for a semilinear parabolic equation.
Proceedings of MAMERN VI 2015, 199–2010 (2015), B. Amaziane et al. (Eds), ISBN 978-84-338-5783-5
4. Note on the convergence of a finite volume scheme using a general nonconforming mesh for an oblique derivative boundary value problem.
Springer Proceedings in Mathematics and Stochastics, V. 77, 2014, 149–157: Finite Volumes for Complex Applications VII, Methods and Theoretical Aspects (Fuhrmann et al. Eds.).
5. A new finite volume scheme for a linear Schrödinger evolution equation.
Springer Proceedings in Mathematics and Stochastics, V. 77, 2014, 127–135: Finite Volumes for Complex Applications VII, Methods and Theoretical Aspects (Fuhrmann et al. Eds.).
6. A note on a new second order approximation based on a low-order finite volume scheme for the wave equation in one space dimension.
Springer Proceedings in Mathematics and Stochastics, V. 77, 2014, 137–147: Finite Volumes for Complex Applications VII, Methods and Theoretical Aspects (Fuhrmann et al. Eds.).
7. Some second order time accurate for a finite volume method for the wave equation using a spatial multi-dimensional generic mesh.
Handlovicova et al. (ed.), *Algoritmy 2012. Proceedings of contributed papers and posters*. Bratislava: Slovak University of Technology, Faculty of Civil Engineering. 342–352 (2012).
8. Some abstract error estimates of a finite volume scheme for the wave equation on general nonconforming multidimensional spatial meshes.
Proceedings of International Symposium of Finite Volume for Complex Applications Edited by J. Fort et al., *Springer Proceedings in Mathematics* 4, 175–183, 2011.

-
9. Some Error Estimates for the Discretization of Parabolic Equations on General Multidimensional Non-conforming Spatial Meshes.
With J. Fuhrmann. I. Domov et al. (Eds), NMA 2010, LNCS 6046, 369–376, 2011. Springer–Verlag, Berlin Heidelberg 2011.
 10. Towards an approach to improve convergence order in finite volume and finite element methods.
Proceedings of ICNAAM "International Conference in Numerical Analysis and Applied Mathematics", Edited by T. E. Simos, G. Psihoyios, and Ch. Tsitouras, 1162–1165, 2009
 11. Some error estimates in finite volume methods for parabolic equations.
With J. Fuhrmann. Finite Volumes for Complex Applications V, Proceedings of the 5th International Symposium on Finite Volume for Complex Applications/ edited by R. Eymard and J.-M. Hérard, Wiley, 233–240, 2008.
 12. On the discretization of Ohmic losses.
With R. Herbin. Proceedings of Tamtam, 2007, Tipaza, Algeria, 217–222. AMNEDP-USTHB, 2007.
 13. On the discretization of the coupled heat and electrical diffusion problems.
With R. Herbin. Numerical Methods and Applications. 6 th International Conference, NMA 2006, Borovets, Bulgaria, Aug. 20–24, 2006. Lecture Notes in Computer Science 4310 Springer 2007, pp. 1–15.
 14. Finite volume approximation for an oblique derivative boundary problem.
with T. Gallouët. Finite Volumes for Complex Applications IV, Proceeding of the 4th International Symposium on Finite Volume for Complex Applications/edited by F. Benkhaldoun, D. Ouazar, and S. Raghay, Hermes-Penton, pp. 143–152, 2005.
 15. Improved convergence order of finite solutions and application in finite elements methods. Proceedings of ICNAAM: International Conference in Numerical Analysis and Applied Mathematics, Simos, G. Psihoyios and C. Tsitouras (eds), Wiley -VCH, pp. 94-98, 2005.

3 Contributions using COMSOL Multiphysics

1. Convergence rates for models with coupled 1D/2D subdomains.
With E. Holzbecher and M.-S. Litz. COMSOL Conference of Paris, 2010.
2. On the convergence order of the COMSOL solutions in Sobolev norms.
With Holzbecher. CD Proceedings of the COMSOL Conference of Budapest, November 2008.
3. On the convergence order of the COMSOL solutions.
With Holzbecher. CD Proceedings of the COMSOL Conference of Grenoble, October 2007.