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Education

Ph.D. Mathematics, University of Crete, Greece, 1998.

Dissertation: "Finite Volume and Finite Element Methods for Boundary and Initial–Boundary Value Problems".

Advisor: Georgios D. Akrivis.

M.S. Applied Mathematics, University of Crete, Greece, 1993.

B.S. Mathematics, University of Crete, Greece, 1991.

Academic Positions

University of Crete, Greece, Department of Mathematics and Applied Mathematics, Associate Professor, November 2015–present.

University of Crete, Greece, Department of Mathematics and Applied Mathematics, Assistant Professor, September 2013–November 2015.

University of Crete, Greece, Department of Mathematics, Assistant Professor, March 2005–September 2013.

University of Crete, Greece, Department of Mathematics, Visiting Assistant Professor, September 2004–February 2005.

Texas A&M University, USA, Department of Mathematics, Visiting Assistant Professor, September 2001–May 2004.

University of Texas at Austin, USA, TICAM, Research Fellow, February 2001–August 2001.

University of Crete, Greece, Department of Applied Mathematics, Visiting Assistant Professor, September 1999–January 2001.

Fields of Research Interest

Numerical Analysis of PDE's, Finite Element and Finite Volume Methods

Publications

1. *Explicit multistep methods for nonstiff partial differential equations*, Applied Numerical Mathematics, **27**, (1998), 13–31.

2. *A finite volume method based on the Crouzeix–Raviart element for elliptic pde's in two dimensions*, Numeriche Mathematik, **82**, (1999), 409–432.

3. *Finite volume methods for elliptic PDE's: A new approach*, M2AN Mathematical Modeling and Numerical Analysis, **36**, (2002), 307–324.

4. *On solving elliptic stochastic partial differential equations*, (with I. Babuška), Computer Methods in Applied Mechanics and Engineering, **191**, (2002), 4093–4122.

5. *The finite volume element method in nonconvex polygonal domains*, (with R. Lazarov), Finite Volumes for Complex Applications III, ed. R. Herbin and D. Kröner, Hermes Penton Science, London, (2002), 171–178.

6. *A-posteriori error estimates for a finite volume method for the Stokes problem in two dimensions*, (with Ch. Makridakis and M. Plexousakis), Applied Numerical Mathematics, **46**, (2003), 45–58.

7. *Error estimates for a finite volume element method for parabolic equations in convex polygonal domains*, (with R. Lazarov and V. Thomée), Numerical Methods for PDE's, **2**0, (2004), 650–674.

8. *Error estimates for a finite volume element method for elliptic PDEs in nonconvex polygonal domains*, (with R. Lazarov), SIAM Journal on Numerical Analysis, **42**, (2005), 1932–1958.

9. *A finite volume element method for a non-linear elliptic problem*, (with R. Lazarov and V. Ginting), Numerical Linear Algebra with Applications, **12**, (2005), 515–546.

10. *Parabolic finite element equations in nonconvex polygonal domains*, (with R. Lazarov, V. Thomée and L. Wahlbin), BIT Numerical Mathematics, **46**, (2006), 113–143.

11. *Parabolic finite volume element equations in nonconvex polygonal domains*, (with R. Lazarov and V. Thomée), Numerical Methods for Partial Differential Equations, **25**, (2009), 507–525.

12. *A posteriori error estimates for the two-step backward differentiation formula method for parabolic equations*, (with G. Akrivis), SIAM Journal on Numerical Analysis, **48**, (2010), 109–132.

13. *Some error estimates for the lumped mass finite element method for a parabolic problem*, (with R. Lazarov and V. Thomée), Mathematics of Computation, **81**, (2012), 1–20.

14. *Some error estimates for the finite volume element method for a parabolic problem*, (with R. Lazarov and V. Thomée), Computational Methods in Applied Mathematics, **13**, (2013), 251–279.

15. *A finite volume element method for a nonlinear parabolic problem*, (with V. Ginting), Numerical Solution of Partial Differential Equations: Theory, Algorithms, and Their Applications, Springer Proceedings in Mathematics and Statistics, Vol. 45, (2013), 121–136.

16. *On positivity preservation in some finite element methods for the heat equation*, (with Z. Hovárth and V. Thomée), Computational Methods in Applied Mathematics, **15**, (2015), 417–437.

Participation in research projects - Grants

Greek Secretariat for Research and Technology, Program "Thalis", 2014–2015. Title: "Analysis, modeling and simulations of complex and stochastic systems"

Greek Secretariat for Research and Technology, Program "Excellence", 2013-2015, Title: "Self adaptive methods for time dependent problems: Algorithms and Analysis(STADAPT)"

ELKE, University of Crete, 2014-2015, Title: "Positivity preservation of fully discrete methods for the heat equation", KA 4179

Conference and Seminar Presentations (Last 3 years)

5th Conference in Numerical Analysis (NumAn 2012), Ioannina, Greece, September 2012.

Numerical Solution of Partial Differential Equations: Theory, Algorithms and their Application Symposium in honor of Raytcho Lazarov's 40 years research in Computational Methods and Applied Mathematics, Sozopol, Bulgaria, June 2013.

Conference on the Mathematics of Finite Elements and Applications (MAFELAP 2013), Brunel University, London, UK, June 2013.

Applied Maths Seminar, University of Leicester, UK, December 2013.

6th Conference in Numerical Analysis (NumAn 2014), Chania, Greece, September 2014.

Citations

Until 15/11/2015 (Web of Science, Thomson–Reuters). Total: 272, without self-citations: 256, h–index: 7