

CURRICULUM VITAE

ATANAS G. STEFANOV

1. Professional Experience

- 2007-date, Associate Professor, Department of Mathematics, KU.
- 2002-2007, Assistant Professor, Department of Mathematics, KU.
- 2000-2002, Visiting Assistant Professor in Mathematics and Statistics, UMASS -Amherst.
- 1999-2000, Postdoctoral fellow, Department of Mathematics, Syracuse University.
- 1995-1999, Research/Teaching Assistant, University of Missouri - Columbia.
- 1993-1995, Assistant Professor, Sofia University, Bulgaria.

2. Education

- 1999 Ph.D., Department of Mathematics, University of Missouri, Columbia.
- 1993, D.E.A. "Analyse et modelisation", University of Paris - VI, France.
- 1993, M.Sc. in Mathematics, Sofia University "St. Kliment Ohridski", Bulgaria.
- 1988, Mathematics High School "Nikola Obreshkov", Kazanlak, Bulgaria.

3. Research Interests

- Harmonic analysis, Partial Differential Equations, Mathematical Physics

4. Grants

- September 2009-August 2012, NSF - DMS 0908802 "Stability in Discrete and Continuous Dynamical Systems", \$ 176999, three year continuing grant.
- June 2007 - May 2010, NSF-DMS 0701802, "Harmonic Analysis and Nonlinear Dispersive Equations", \$ 114000, three year standard grant.
- April 2003, NSF-DMS 0300511, "Harmonic analysis and applications to geometric PDE's, 2003-2006, \$ 98000, three year standard grant.
- April 2003, University of Kansas NFGRF 2301716, \$ 7900.
- 1992-1993, TEMPUS program of the European Commission, one year fellowship, 8500 ECU, Paris, France.

5. Graduate student supervision

- Ph.D. committees - chair:
Seungly Oh, in progress, The University of Kansas;

- Ph.D. committees - member:
Diego Maldonado, Ph.D. 2005, The University of Kansas;
Mirko Tarulli, Ph.D. 2006, The University of Pisa, Italy;
Angel Ivanov, Ph.D. 2006, The University of Pisa, Italy;
Jimmy Mauro, in progress, The University of Pisa, Italy;
Aslihan Demirkaya, in progress, The University of Kansas.

6. Awards

- September, 2007, Support to attend workshop in Oberwolfach, Germany (by invitation only).
- June 2006, Research in Pairs program, ENS, Pisa - Center Ennio De Giorgi.
- August 2005, Support to attend workshop in Nonlinear Dispersive Equations, MSRI, Berkeley, CA.
- October, 2004, Support to attend workshop in Oberwolfach, Germany (by invitation only).
- July 2003, Support to attend workshop in harmonic analysis - from IAS/Park city math institute.
- AY 2000/01, AY 2001/02, University of Massachusetts, Faculty research travel grant (\$ 1000).
- Summer 2000, AMS travel grant (\$ 1000).
- 1999, Superior Graduate Achievement Award, University of Missouri.
- 1995-1999 G. Ellsworth Huggins Doctoral fellow, University of Missouri - Columbia.
- 1994-1995, Research grant of the Bulgarian Ministry of Science and Education - Banach spaces and convex geometry.
- 1990, National Students Mathematical Olympiad in Bulgaria, First Prize.
- 1988-1992, state scholarship for excellence in academic work (Sofia University, Bulgaria).

7. Journal Publications (all refereed)

- (1) L. Grafakos; A. Stefanov, *L^p bounds for singular integrals and maximal singular integrals with rough kernels*, Ind. Univ. Math. J. **47** (1998), 455–469.
- (2) A. Stefanov, *Characterizations of H^1 and applications to singular integrals*, Ill. J. Math. **44** (2000), 574–592.
- (3) A. Stefanov, *Strichartz estimates for the Schrödinger equation with radial data*, Proc. Amer. Math. Soc., **129** (2001), 1395–1401.
- (4) A. Stefanov, *Weak type estimates for certain Calderón-Zygmund singular integral operators*, Studia Mathematica **147**, (2001), 1–13.
- (5) A. Nahmod; A. Stefanov; K. Uhlenbeck, *On Schrödinger maps*, Comm. Pure Appl. Math **56** (2003), 114–151; *Erratum: "On Schrödinger maps"* Comm. Pure Appl. Math. **57** (2004), 833–839.
- (6) A. Nahmod; A. Stefanov; K. Uhlenbeck, *On the well-posedness of the wave map problem in high dimensions*, Comm. Anal. Geom. **11** (2003), 49–83.

- (7) A. Stefanov; R. H. Torres, *Calderón-Zygmund operators on mixed Lebesgue spaces and applications to null forms*, J. London Math. Soc. (2) **70** (2004), 447–462.
- (8) A. Stefanov, P. Kevrekidis, *Asymptotic behavior of small solutions for the discrete nonlinear Schrödinger and Klein-Gordon equations*, Nonlinearity **18** (2005), 1841–1857.
- (9) A. Stefanov, *On first order perturbations of the Schrödinger equation with conjugation*, Diff.Int. Eq. **18** (2005), 997-1012.
- (10) M. Stanislavova, A. Stefanov, *On global finite energy solutions of the Camassa-Holm equation*, J. Four. Anal. Appl. **11** (2005), 511–531.
- (11) M. Stanislavova, A. Stefanov, B. Wang, *Asymptotic Smoothing and Attractors for the Generalized BBM Equation on \mathbf{R}^3* , J. Diff. Eq. **219** (2005), 451–483.
- (12) P. Kevrekidis, D. Pelinovsky, A. Stefanov, *Nonlinearity management in higher dimensions*, J. Phys. A, **39** (2006), p. 479-488.
- (13) V. Naibo, A. Stefanov, *On some Schrödinger and wave equations with time dependent potentials*, Math. Ann. **334**, (2006), 325–338.
- (14) A. Stefanov, *Strichartz estimates for the magnetic Schrödinger equation*, Adv. Math., **210**, (2007) 246–303.
- (15) A. Stefanov, *On quadratic derivative Schrödinger equations in one space dimension*, Trans. Amer. Math. Soc., **359**, (2007), 3589-3607.

- (16) V. Georgiev, A. Stefanov, M. Tarulli, *Smoothing - Strichartz estimates for the Schrödinger equation with small magnetic potential*, Disc. Contin. Dyn. Syst. - A **17**, (2007), 771–786.
- (17) M. Stanislavova, A. Stefanov, *Attractors for the viscous Camassa-Holm equation*, Discrete Contin. Dyn. Syst. - A **18**, (2007), 159–186.
- (18) A. Stefanov, *Global well-posedness for the 2 D quasi-geostrophic equation in a critical Besov space*, Electron. J. Diff. Eqns., Vol. **2007** (2007), No. 150, pp. 1-9.
- (19) P.G. Kevrekidis, J.A. Espinola-Rocha, Y. Drossinos, A. Stefanov, *Dynamical Barrier for the Nucleation of Solitary Waves in Discrete Lattices*, Phys. Lett. A, Vol. **372**, Issue 13, 2008 , p. 2247-2253
- (20) D. Pelinovsky, A. Stefanov *On the spectral theory and dispersive estimates for a discrete Schrödinger equation in one dimension*, J. Math. Phys. **49**, 113501, 17 pages, (2008).
- (21) A. Stefanov, *Pseudodifferential operators with rough symbols*, to appear J. Four. Anal. Appl.
- (22) A. Stefanov, *Global regularity for the minimal surface equation in Minkowskian geometry*, to appear in Forum Mathematicum.
- (23) M. Stanislavova, A. Stefanov, *On precise center-stable manifold theorems for certain reaction-diffusion and Klein-Gordon equations*, to appear in Physica D: Nonlinear Phenomena
- (24) A. Stefanov, *On the Lipschitzness of the solution map for the 2D Navier-Stokes system*, to appear in Disc. Cont. Dyn. Syst. - A.

- (25) P. Kevrekidis, D. Pelinovsky, A. Stefanov, *Asymptotic stability of small solitons in the discrete nonlinear Schrödinger equation in one dimension*, to appear SIAM J. Math. Anal.

8. Refereed Conference Proceedings, Book Entries

- (1) L. Grafakos; A. Stefanov, *Convolution Calderón-Zygmund singular integral operators with rough kernels*, Analysis of divergence (Orono, ME, 1997), 119–143, Appl. Numer. Harmon. Anal., Birkhäuser Boston, Boston, MA, 1999.
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- (2) A. Stefanov, *Decay and Strichartz Estimates for DNLS*, Chapter 22, from the book, The Discrete Nonlinear Schrödinger Equation: Mathematical Analysis, Numerical Computations and Physical Perspectives, Springer Tracts in Modern Physics, Springer Berlin/Heidelberg, vol. 232/2009.
- (3) M. Stanislavova, A. Stefanov, *Effective estimates of the higher Sobolev norms for the Kuramoto-Sivashinsky equation*, to appear in Disc. Contin. Dyn. Syst. - A (suppl.)

9. Invited Presentations

- November 2009, invited talk, AMS special session on Harmonic Analysis, Boca Raton, Florida.
- July 2009, invited talk, 7th ISAAC Congress, Imperial College, London, UK.
- July 2009, invited presentation, "Localized Excitations in Nonlinear Complex Systems (LENCOS)", University of Seville.
- June 2009, seminar talk, Sofia University.
- July 2008, invited talk at the SIAM Conference on Nonlinear waves and coherent structures, Università di Roma "La Sapienza".
- September 2007, invited talk at the workshop "Nonlinear Waves and Dispersive Equations", Oberwolfach, Germany.
- May 2007, minisymposium talk at SIAM conference on applications of dynamical systems, SnowBird, UT.
- April 2007, Applied Analysis Seminar, UMASS, Amherst.
- March 2007, Analysis and PDE seminar, Johns Hopkins University,
- January 2007, invited talk at "Nonlinear Lattice Dynamics: from localization to statistical behavior", Centro Internacional de Ciencias, Cuernavaca, Mexico.
- November 2006, Kansas State University, Analysis seminar.
- August 2006, Seville, Spain, invited talk at "Harmonic and Geometrical Analysis with Applications to Partial Differential Equations", ICM 2006 satellite conference.
- July 2006, Sofia University, Bulgaria, Conference honoring the Pioneers of Bulgarian Mathematics.
- June 2006, University of Pisa, PDE seminar.
- April 2006, University of Notre Dame, AMS special session on Analysis and Geometry of Non-linear Evolution Equations.

- April 2006, Florida International University, AMS special session on Nonlinear waves.
- March 2005, Applied Analysis Seminar, UMASS - Amherst.
- January 2005, Santiago, Chile, PASI 2005, Workshop on differential equations and nonlinear analysis.
- October 2004, Albuquerque, New Mexico, AMS special session on Regularity in PDE and Harmonic Analysis
- June 2004, Show-me conference, University of Missouri.
- April 2004, Phase Space Analysis of Partial Differential Equations, Centro Di Ricerca Matematica, Pisa.
- June 2003, First AMS-RMSE meeting, Seville, Spain.
- May 2002, University of Missouri, Harmonic Analysis/PDE conference.
- May 2002, University of Montreal, AMS special session on Harmonic Analysis.
- Jan 2002, University of Kansas, Lawrence.
- Jan 2002, University of Illinois, Urbana-Champaign.
- Jan 2002, University of New Mexico.
- July 2001, Mt. Holyoke College, AMS special summer program on harmonic analysis.
- April 2001, Yale University
- March 2001, University of Kansas, Lawrence, AMS special session on Harmonic Analysis and Applications.
- February 2001, Brown University.
- October 2000, Virginia Tech University, Southeastern-Atlantic Regional Conference on Differential Equations.
- November 1999, University of Massachusetts, Amherst.
- June 1999, Blaubeuren, Germany, International Conference on Spectral Theory and Asymptotic Behavior of Semigroups.
- January 1999, University of Wisconsin, Conference on Singular and Oscillatory integrals.
- October 1998, Auburn University, Southeastern-Atlantic Regional Conference on Differential Equations.
- November 1997, University of New Mexico, AMS special session on Harmonic Analysis.

10. State service

- 2005- Founding organizer for the Kansas collegiate mathematics competition - 2005, Lawrence, KS; 2006, Arkansas city, KS; 2007 - Wichita, KS; 2008 - Newton, KS.

11. College Service

- 2008/2009 - Sabbatical committee

12. Departmental Service

- Coach, KU Putnam competition team, 2002 - 2005 . In this period, KU placed 28th in the 2004 edition, 47th in 2003 edition, and 52nd in 2002 edition.
- Recruiting committee 2004/2005, 2005/2006, 2007/2008.
- Chair search committee 2008/2009.
- Analysis qualifying examinations, 2002 - present.
- Library committee, 2002-present.
- Honors committee - 2005-present.
- Graduate program review committee - 2009/2010.

13. Service to the profession

Organizing Committees

- Member, Global Organizing Committee for 7th AIMS International Conference on Dyn. Systems, Diff. Equations and Applications, Arlington, May 18 - 21, 2008
- Section Organizer, 8th AIMS International Conference on Dyn. Systems, Diff. Equations and Applications, Dresden, Germany, May 2010.

Reviewing for Grant agencies

- NSF - two panels in the Analysis program
- NSF - Mail reviews
- Grant agency of the Czech Academy of sciences, mail review
- Math Reviews - around 40 reviews.

Ad-hoc Referee

- Archiv der Mathematik
- American Mathematical Monthly, 2 papers
- Applied Mathematics Letters, 2 papers
- Collectanea Mathematica
- Communications in Contemporary Mathematics
- Contemporary Mathematics - conference proceedings, 2 papers
- Differential and Integral equations, 3 papers
- Glasgow Mathematical Journal
- Illinois Journal of Mathematics
- Indiana University Mathematics Journal
- International Journal of Mathematics and Mathematical Sciences, 2 papers
- Journal of Differential Equations
- Journal of Difference Equations and Applications
- Journal of Functional Analysis, 2 papers
- Journal of the London Mathematical Society
- Journal on Mathematical Analysis and Applications, 10 papers
- Journal of Mathematical Physics
- Journal of Physics A: Math. and Gen.
- Pacific Journal of Mathematics
- Proceedings of the Edinburgh Mathematical Society,

- Transactions of the American Mathematical Society
- Science in China