

Curriculum Vitae

Irina Nenciu
Mathematics 253-37
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Date of birth: November 9, 1978
Citizenship: Romanian

Education

2001– Graduate student in Mathematics, California Institute of Technology, Pasadena, CA
PhD expected in June 2005
Thesis title: *Lax pairs for the Ablowitz-Ladik system via orthogonal polynomials on the unit circle*
Advisor: Professor B. Simon

1997–2001 Bachelor of Science Department of Mathematics, University of Bucharest, Romania
Diploma Thesis: *Semiclassical asymptotics of spectra of second order elliptic differential operators*
Advisor: Professor V. Iftimie

Publications

- (with R. Killip) Matrix models for circular ensembles, *Int. Math. Res. Not.* **50** (2004), 2665–2701.
- Lax pairs for the Ablowitz-Ladik system via orthogonal polynomials on the unit circle, *Int. Math. Res. Not.* **11** (2005), 647–686.

Research interests

Orthogonal polynomials, random matrices, integrable systems

Invited Talks

- Cornell University - Analysis Seminar - April 2005
- Caltech - 24th Annual Western States Mathematical Physics Meeting - March 2005
- Caltech - Mathematical Physics Seminar - January 2005

- Courant Institute - Probability and Mathematical Physics Seminar - December 2004
- UC Irvine - Mathematical Physics Seminar - April 2004
- UCLA - Analysis Participation Seminar - April 2004
- AMS Spring Western Section Meeting, Los Angeles - Special Session on Nonlinear and Harmonic Analysis - April 2004
- Caltech - Mathematical Physics Seminar - January 2004

Awards

2004 Scott Russell Johnson Prize for Excellence in Graduate Research and Teaching, Caltech

2002 Scott Russell Johnson Prize for Excellence in First Year Graduate Studies, Caltech

1998, 1999, 2000 Distinguished Fellowship, University of Bucharest

Conferences attended

- Summer School, “Hamiltonian Mechanics and Integrable Systems,” Lake Arrowhead, CA, September 12–17, 2004
- Workshop on Spectral Theory of Schrödinger Operators, CRM, Montréal, July 26–30, 2004
- Western States Mathematical Physics Meeting, Caltech, February 16-17, 2004
- IAS/PCMI Summer Session, “Harmonic Analysis and Partial Differential Equations,” Park City, Utah, June 29 – July 19, 2003
- AMS-IMS-SIAM Summer Research Conference, “Spectral Theory and Inverse Spectral Theory for Jacobi Operators,” Snowbird, Utah, June 8–12, 2003
- Western States Mathematical Physics Meeting, Caltech, February 17-18, 2003
- Western States Mathematical Physics Meeting, Caltech, February 18-19, 2002

Teaching Experience

Caltech

2004–2005 Lead Teaching Assistant, Ma1a (Calculus of One Variable)
Instructor, Ma1d (Calculus: Series)

2003–2004 Teaching Assistant Ma2a, (Probability and Statistics)
Instructor, Ma1d (Calculus: Series)

2002–2003 Teaching Assistant, Ma2a (Probability and Statistics)
Teaching Assistant, Ma 1b (Linear Algebra)

2001–2002 Teaching Assistant, Ma1abc (Calculus of One and Several Variables and Linear Algebra)