

Curriculum Vitae: Nadya Shirokova

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Office (January-March):
Stanford University

nadya@math.uiuc.edu

Degrees recieved:

- 1998 – PhD, University of Chicago

Citizenship: American Citizen, Canadian Permanent Resident

Research Interests:

- Invariants of finite type for knots and 3-manifolds
- Contact Geometry: Contact Homology, Topology of the Contactomorphism Group
- Gauge Theory Invariants: Heegaard Floer Homology, Seiberg-Witten and Bauer-Furuta Invariants.

Positions:

- 1998-2002 - Doob Research Assistant Professor, U of I at Urbana - Champaign
- Fall 2000 - Member AIM/Stanford, Program: Contact Geometry
- 2002-2003 - Member of the Institute for Advanced Study
- 2003-2004 - Member of the IHES, France
- 2004-present - Member of the Max-Planck Institute, Germany

Visiting positions:

- 1996 - Visiting Graduate Student, Max-Planck Institute, Bonn

- Spring 2001 - University of Chicago
- Fall 2001 - IAS, Program: Symplectic Geometry and Holomorphic Curves
- March-April 2001 - Fields Institute, Toronto
- August 2003 - MSRI, General Member and AIM/Stanford, Workshop: Holomorphic Curves and Contact Geometry
- February 2004 - MSRI, Program: Topological Aspects of Real Algebraic Geometry
- June-July 2004 - Max Planck Institute
- January-March 2005 - Stanford University

Teaching experience:

- 1991-1992 - Teaching Assistant, University of Chicago,
Calculus 153,
Linear Algebra 241.
- 1992-1997 - Lecturer, University of Chicago,
Calculus 153.
- 1998-2002 - Assistant Professor, University of Illinois U-C,
Vector Calculus 242,
Fundamentals of Mathematics 247,
Differential Equations and Orthogonal Functions 285,
Invariants of 3-manifolds 438,
RAP course “Contact Geometry”,
RAP course “Low-dimensional topology”.

Publications:

- [1] *The Space of 3-manifolds and Vassiliev Finite-Type Invariants*, q-alg 9705012.
- [2] *Counterexamples to the Equivariant Borel Conjecture*, PhD Thesis, University of Chicago, 1998.
- [3] *The Space of 3-manifolds*, Comptes Rendus Acad. Sci., t.331, p. 131-136, 2000.
- [4] *Toric Integrable Geodesic Flows* (with E. Lerman), math.DG/0011139, *Completely integrable torus actions on symplectic cones* Math. Research Letters 9, 105-115 (2002).

- [5] *Vanishing Cycles and the Inverse Problem of Potential Theory*, mathDG/0111129, submitted.
- [6] *Finiteness of the Homotopy Type of Chambers of the Space of 3-manifolds*, resubmitted
- [7] *Space of parallelizable 4-manifolds and families of invariants*, preprint 2003.
- [8] *On Contactomorphism Groups of 3-manifolds*, in preparation.
- [9] *Invariants of finite type for families*, in preparation.

Awards:

- Dissertational Research Fellow, U of Chicago, 1998
- Scholar's Travel Grant, Campus research board, UIUC - 1999
- Travel Grant, AWM - 2000

Memberships:

- American Mathematical Society
- Association for Women in Mathematics

Recent talks:

- University of Chicago, (April 2000)
- Conference in Real Algebraic Geometry, Levico-Terme, Italy (June 2000)
- UC Berkeley, (October 2000)
- UQAM, (April 2001)
- IAS, (November 2001)
- Tulane University, (January 2002)
- AMS meeting in San Diego, (January 2002)
- IAS (October 2002)
- AMS meeting in New York (April 2003)
- University of Nantes, France (December 2003)

- Ecole Polytechnique, Paris (January 2004)
- University of Warwick, England (February 2004)
- Oxford University, England (May 2004)
- Simon-Fraser University, Canada (July 2004)
- Max-Planck Institute, Germany (September 2004)
- UIUC: Lectures given at various seminars (Spring 2001): “Contact Homology”, “Instanton and Symplectic Floer Homology”, “Symplectic Field Theory”, “Tightness and Fillability in Contact Geometry”. (Fall 2001): “Finite-type invariants of knots”, (Spring 2002): “Finite type invariants of Legendrian knots”, “Finiteness of homotopy classes of tight contact structures”.

A Note for American and Canadian Universities: In January-March I will be visiting Stanford University and will be happy to visit and give a talk.