

Curriculum Vitae: Nadya Shirokova

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Degrees recieved:

- 1998 – PhD, University of Chicago

Citizenship: American Citizen, Canadian Permanent Resident

Research Interests:

- Classification of Floer-type theories (knots, 3 and 4-manifolds)
- Contact Geometry: Contact Homology, Topology of the Contactomorphism Group
- Gauge Theory Invariants: Heegaard Floer Homology, Seiberg-Witten and Bauer-Furuta Invariants.
- Category Theory, Homological Algebra

Positions:

- 1998-2002 - Doob Research Assistant Professor, U of I at Urbana - Champaign
- 2002-2003 - Member of the Institute for Advanced Study
- 2003-2004 - Member of the IHES, France
- 2004-2005 - Member of the Max Planck Institute, Germany
- 2005-2007 - Lecturer, Stanford University

Visiting positions:

- 1996 - Visiting Graduate Student, Max-Planck Institute, Bonn
- Fall 2000 - Member AIM/Stanford, Program: Contact Geometry
- 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
- March-May 2005 - Stanford University, Mentoring Grant
- May 2007 - Fields institute, Geometric Applications of Homotopy Theory

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”.
- 2005-2007 - Lecturer, Stanford University,
Modern Algebra, 120
Linear Algebra, 103
Differential Equations, 53
Calculus, 51

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.
- [7] *On parallelizable 4-manifolds and families of invariants*, preprint 2005.
- [8] *On the classification of Floer-type theories.*, arXiv:0704.1330.
- [9] *The finiteness result for Khovanov homology.*, preprint 2006.
- [10] *Wall-crossing morphism for Khovanov-Rozhansky homology*, with B.Webster, arXiv:0706.1388.
- [11] *The constructible sheaf of the Heegaard Floer homology on the Space of 3-manifolds*, in preparation.

Awards:

- Dissertational Research Fellow, U of Chicago, 1998
- Scholar's Travel Grant, Campus research board, UIUC - 1999
- Travel Grant, AWM - 2000
- Mentoring Grant NSF/AWM - 2005

Memberships:

- American Mathematical Society
- Association for Women in Mathematics

Recent talks:

- Ecole Polytechnique, France (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)

- U of Pennsylvania, (May 2005)
- Stanford University, (May 2005)
- IAS, ("Holomorphic curves" conference, June 2005)
- USC, (September 2006)
- AMS, (October 2006, section: Floer Methods in Low-dimensional Topology)
- AMS, (October 2006, section: Mathematics Motivated by Physics)
- UC Berkeley, (October 2006)
- UC Davis, (October 2006)
- UC Santa-Barbara (November 2006)
- CTQM, Denmark (December 2006)
- Kansas State U (January 2007)
- IAS, Princeton (March 2007)
- Columbia U (April 2007)
- U of Oregon (April 2007)
- U of Chicago (May 2007)
- Northwestern U (May 2007)
- Bedlewo, Poland (June 2007)