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Penka Georgieva

Curriculum Vitae

Education

- **Stanford University**, Stanford, California
Ph.D. in Mathematics, June 2011 (expected)
Thesis Advisor: Eleny Ionel
- **Sofia University "Saint Kliment Ohridski"**, Sofia, Bulgaria
M.Sc. in Mathematics, June 2005
- **Sofia University "Saint Kliment Ohridski"**, Sofia, Bulgaria
B.Sc. in Mathematics, June 2003

Research Interests

- Symplectic Topology, Moduli Spaces, Gromov-Witten Theory

Publications

- *Open Gromov-Witten disk invariants in the presence of an anti-symplectic involution* (in preparation)
- *The local system of orientations on $\overline{\mathfrak{M}}_{g,k}(\Sigma, \partial\Sigma; M, L; \mathbf{b})$* (in preparation)

Teaching Experience

- **Teaching Assistant** at Stanford University
Responsible for leading sections, holding office hours and grading exams:
 - Spring 2010, Math 20, Calculus
 - Winter 2009, Math 51, Linear Algebra and Differential Calculus of Several Variables
 - Autumn 2007, Math 51, Linear Algebra and Differential Calculus of Several Variables
- **Course Assistant** at Stanford University
Responsible for holding office hours and grading exams:
 - Spring 2009, Math 148, Algebraic Topology
 - Winter 2008, Math 20, Calculus
 - Spring 2007, Math 114, Linear Algebra and Matrix Theory II
 - Winter 2007, Math 106, Functions of a Complex Variable
 - Winter 2006, Math 115, Functions of a Real Variable
 - Autumn 2005, Math 106, Functions of a Complex Variable

Presentations

- “Open Gromov-Witten disk invariants”, Columbia Symplectic Geometry, Gauge Theory, and Categorification Seminar, Columbia University, January 2011

- “Open Gromov-Witten invariants in the presence of an anti-symplectic involution”, Symplectic Geometry Seminar, Stanford University, November 2010
- “The determinant bundle of the moduli space of curves with Lagrangian boundary conditions”, Symplectic Geometry Seminar, Stanford University, February 2010
- “Kuranishi structures”, Graduate Student Seminar at the program Symplectic and Contact Geometry and Topology, MSRI, November 2009
- “Moduli space of J-holomorphic curves: compactness and transversality”, Student Research Colloquium, Stanford University, October 2009
- “The orientation bundle of the moduli space of open curves” (poster), Connections for Women: Symplectic and Contact Geometry and Topology, MSRI, August 2009
- “Spanier-Whitehead Duality”, Classics in Geometry and Topology Seminar, Stanford University, March 2007
- “Whitehead Torsion”, Classics in Geometry and Topology Seminar, Stanford University, February 2007
- “Stiefel-Whitney Classes”, Classics in Geometry and Topology Seminar, Stanford University, January 2007

Activities

- Associate member of the program Symplectic and Contact Geometry and Topology, MSRI, August 2009-May 2010
- Co-organizer of the Graduate Student Seminar at the program Symplectic and Contact Geometry and Topology, MSRI, August 2009-December 2009

Conferences Attended

- Symplectic Geometry with Algebraic Techniques, Instituto Superior Técnico, Lisbon, June 2010
- Symplectic Geometry, Noncommutative Geometry and Physics, MSRI, May 2010
- Symplectic and Contact Topology and Dynamics: Puzzles and Horizons, MSRI, March 2010
- Algebraic Structures in the Theory of Holomorphic Curves, MSRI, November 2009
- Introductory Workshop: Symplectic and Contact Geometry and Topology, MSRI, August 2009
- Connections for Women: Symplectic and Contact Geometry and Topology, MSRI, August 2009
- Summer Graduate Workshop: Symplectic and Contact Geometry and Topology, MSRI, August 2009
- Workshop on Symplectic Field Theory IV, Ludwig-Maximilians-Universität, München, July 2009
- Workshop on Holomorphic Curves, Stanford University, August 2008
- Graduate Student Topology Conference, University of Chicago, April 2007

References

- **Eleny Ionel** (Stanford University; Thesis Advisor):
ionel@math.stanford.edu
- **Yakov Eliashberg** (Stanford University):
eliash@math.stanford.edu
- **Jun Li** (Stanford University):
jli@math.stanford.edu
- **Persi Diaconis** (Stanford University) (teaching):
diaconis@math.stanford.edu