

Mohammed Abouzaid

Department of Mathematics
M.I.T., 77 Massachusetts Ave.
Cambridge, MA 02139-4307 USA

Phone: (617) 253-4381
Fax: (617) 253-4358
abouzaid-at-math.mit.edu

Personal

Citizenship: United States

Education

Ph.D. in Mathematics, The University of Chicago, June 2007

M.S. in Mathematics, The University of Chicago, June 2004

B.S. in Mathematics and Physics, University of Richmond, May 2002

Employment

Research Fellow Clay Mathematics Institute	2007–2012 Cambridge, MA
Postdoctoral Fellow MIT	2007– Cambridge, MA

Teaching Experience

Linear Algebra **Instructor**, University of Chicago, Fall 2006

Calculus **Instructor**, University of Chicago, 2004–2005

Publications and Preprints

- [15] Maslov 0 nearby Lagrangians are homotopy equivalent, arXiv:1005.0358.
- [14] A cotangent fibre generates the Fukaya category, arXiv:1003.4449.
- [13] A geometric criterion for generating the Fukaya category, arXiv:1001.4593.
- [12] On the wrapped Fukaya category and based loops, arxiv:0907.5606.
- [11] A topological model for the Fukaya category of plumbings, arXiv:0904.1474.
- [10] (with I. Smith) Homological Mirror Symmetry for the four-torus, *Duke Mathematical Journal*, **152** (2010), no. 3, 373–440.
- [9] Framed bordism and Lagrangian embeddings of exotic spheres, arXiv:0812.4781.
- [8] (with P. Seidel) An open string analogue of Viterbo functoriality, *Geometry & Topology* **14** (2010), 627–718.
- [7] Morse homology, tropical geometry, and homological mirror symmetry for toric varieties, *Selecta Mathematica* (New Series), **15** (2009), no 2, 189–270
- [6] On the Fukaya categories of higher genus surfaces, *Advances in Mathematics*, **217** (2008), no. 3, 1192–1235.
- [5] Homogeneous coordinate rings and mirror symmetry for toric varieties, *Geometry & Topology* **10** (2006), 1096–1156.
- [4] (with M. Boyarchenko), The moduli space of flat G -bundles on a compact hyper-Kähler manifold, preprint math.DG/0506175.
- [3] (with M. Boyarchenko), Local structure of generalized complex manifolds, *Journal of Symplectic Geometry* **4** (2006), no. 1, 43–62.

- [2] (with J. Alper, S. DiMauro, J. Grosslight, D. Smith) On cosets of the unit loop of octonion integers, *Communications in Algebra* **35** (2007), no. 1, 207–214.
- [1] (with J. Alper, S. DiMauro, J. Grosslight, D. Smith) Common left- and right-hand divisors of a quaternion integer, submitted.

Invited Lectures

Brown University Algebra and Algebraic Geometry Seminar (April 2010).
 Geometry, Symmetry and Physics at Rutgers University, New Brunswick (April 2010)
 MSRI workshop on Symplectic and Contact Topology and Dynamics: Puzzles and Horizons (March 2010)
 MIT Geometry seminar (March 2010)
 Conference on Tropical Geometry and Mirror Symmetry at UCSD (February 2010)
 Caltech Geometry and Physics Seminar (February 2010)
 Minicourse speaker at Miami University Workshop on Homological Mirror Symmetry and Related Topics (January 2010)
 International Conference on Mirror Symmetry and Gromov-Witten Theory at Seoul National University (January 2010)
 MSRI workshop on Tropical Structures in Geometry and Physics (December 2009)
 MSRI workshop on Algebraic structures in the theory of holomorphic curves (November 2009)
 AIM workshop on Cyclic homology and symplectic topology (November 2009)
 Purdue Topology Seminar (October 2009)
 Clay Plenary Lecturer at 53rd Annual Meeting of the Australian Mathematical Society (September 2009)
 2009-2010 Clay Lectures on Mathematics (8 Lectures, September-October 2009)
 MSRI Introductory workshop on Tropical Geometry, (August 2009)
 MSRI Introductory workshop on Symplectic and Contact Geometry and Topology, (August 2009)
 Workshop on Symplectic Field Theory IV, Ludwig-Maximilians-Universitt, Munich (July 2009)
 Workshop on Mirror Symmetry, Symplectic Geometry, and Related Topics, MIT (June 2009)
 Lecturer at University of Pennsylvania 'Geometry of quantum fields and strings' (June 2009)
 Northwestern University Conference on Topological Field Theories, (May 2009)
 Beijing University Seminar on geometric analysis (May 2009)
 BICMR Conference on Symplectic Geometry and Physics, Beijing (May 2009)
 ETH Zurich Symplectic Geometry Seminar (April 2009)
 Workshop on Quantum Algebra and Field theory, University of Kyoto (February 2009)
 Workshop on Homological Mirror Symmetry and Related Topics, University of Miami (January 2009)
 Stanford University symplectic geometry seminar (December 2008)
 UCLA/USC joint Geometry/Topology Seminar (November 2008)
 Columbia University Symplectic Geometry and Gauge Theory Seminar (October 2008)
 University of Chicago Geometry Seminar (October 2008)
 University of Michigan Geometry and Physics Seminar (October 2008)
 Ecole Polytechnique Séminaire SYMPLECT'X (September 2008)
 EPFL Lausanne Workshop on Real and Tropical Algebraic Geometry (June 2008)

MIT Workshop on Mirror Symmetry and Symplectic Geometry (May 2008)
CRM Montreal Workshop on Floer Theory and Symplectic Dynamics (May 2008)
Stanford University Workshop on String Topology and the Topology of Moduli Spaces (March 2008)
Cambridge University Geometry Seminar (March 2008)
Oxford University Geometry Seminar (February 2008)
Imperial College Geometry Seminar (February 2008)
Algebraic surfaces and symplectic 4-manifolds conference at Warwick University (February 2008)
University of Oxford Symplectic and Algebraic Geometry Seminar (February 2008)
Workshop on Symplectic Geometry, Contact Geometry and Interactions, Brussels (February 2008)
Workshop on Homological Mirror Symmetry and Related Topics, University of Miami (January 2008)
Ludwig Maximilian University of Munich Symplectic Geometry Seminar (January 2008)
Oberwolfach workshop on Tropical Geometry (December 2007)
Stony Brook University Seminar (November 2007)
NYU Symplectic Geometry Seminar (November 2007)
Harvard University Gauge Theory Seminar (October 2007)
Boston University Geometry Seminar (October 2007)
ETH Zurich Symplectic Geometry and Physics Conference (September 2007)
Ecole Polytechnique Fédérale de Lausanne program on Algebraic, Symplectic Geometry and Physics (August 2007)
14th Gökova Geometry/Topology Conference (May 2007)
MIT Geometry Seminar (April 2007)
Clay Workshop: Recent Developments in Symplectic Topology (April 2007)
Banff Workshop on Tropical Geometry (March 2007)
Field Institute “Geometric Stories” Seminar (March 2007)
Northwestern University geometry and physics seminar (February 2007)
USC Geometry and Topology seminar (February 2007)
IAS Mirror Symmetry Seminar (February 2007)
IAS Workshop on Homological Mirror Symmetry (January 2007)
Miami University Geometry Seminar (December 2006)
Columbia/NYU/Stony Brook joint NY symplectic geometry seminar (December: 2006)
Stanford University symplectic geometry seminar (October 2006)
VII Workshop on Symplectic and Contact Topology, a Madrid ICM satellite (August 2006)
Northwestern University geometry and physics seminar (March 2006)
Chinese University of Hong Kong geometry seminar (February 2006: 8 lectures)
Miami University Colloquium (September 2006)