

M. Umut Isik

- CONTACT INFORMATION** Department of Mathematics *Tel:* (215) 840-6197
209 S 33rd Street *Fax:* (215) 573-4063
University of Pennsylvania *E-mail:* isik@math.upenn.edu
Philadelphia, PA 19104 USA *Homepage:* <http://www.math.upenn.edu/~isik>
- PERSONAL INFORMATION** Born in 1985. Citizenship: Turkey.
- EDUCATION** **University of Pennsylvania**, Philadelphia, Pennsylvania USA
Ph.D. Candidate, Mathematics, joined September 2006, expected graduation date: May 2011
Dissertation Topic: “The Derived Category and the Singularity Category”
Advisor: Tony Pantev
- University of Cambridge**, Cambridge, UK
Certificate of Advanced Study in Mathematics, June, 2006
- Bilkent University**, Ankara, Turkey
B.S., Mathematics, September 2006
- University of California, Los Angeles**, Los Angeles, California USA
Exchange student, 2004-2005
- HONORS AND AWARDS** Benjamin Franklin Fellowship, University of Pennsylvania 2005-2011
Bursary of the Cambridge Overseas Trust, 2005
Middle East Technical University, 7th Annual Programming Contest, 3rd Place, 2004
Middle East Technical University, 6th Annual Programming Contest, 1st Place, 2003
Full Scholarship, Bilkent University, 2002-2006
Turkish National Informatics Olympiad, Bronze Medal, 2000
- RESEARCH INTERESTS** Algebraic geometry, homological algebra
- PAPERS** *Equivalence of the Derived Category of a Variety with a Singularity Category*, preprint, available at <http://arxiv.org/abs/1011.1484>
- TALKS** *Equivalence of the Derived Category of a Variety with a Singularity Category* , University of Toronto, Invited January 2010
Equivalence of the Derived Category of a Variety with a Singularity Category Midwest Algebraic Geometry Graduate Conference, University of Wisconsin, Madison, October 2010
Poster: *Equivalence of the Derived Category of a Variety with a Singularity Category*, AGNES Conference, University of Massachusetts Amherst, April 2010
DG categories and Morita Theory, 4 talks, Graduate Algebra Seminar, University of Pennsylvania, Fall 2009
Generators and Representability of Functors in Commutative and Non-Commutative geometry, 2 talks, Graduate Algebra Seminar, University of Pennsylvania, Spring 2009
Algebraic Complexity Theory, Pizza Seminar, University of Pennsylvania, Fall 2009
Deformation Theory and DGLAs, 2 talks, Graduate Algebra Seminar, University of Pennsylvania, Spring 2008

Variation of Hodge Structures, Mirror Symmetry Working Seminar, University of Pennsylvania, Fall 2007

Classification and Geography of Complex Algebraic Surfaces, Part III Student Seminar, University of Cambridge, March 2006

Cohomology of Groups and Fixed Points of Finite Group Actions on Spheres and Disks, Part III Student Seminar, University of Cambridge, November 2005

Computational Problems in the Braid Group with Applications to Cryptography, UCLA, April 2005

TEACHING
EXPERIENCE

Instructor, University of Pennsylvania

Math 240: Calculus III (Standard syllabus: linear algebra, ordinary differential equations, vector calculus), Summer 2010

Math 170: Ideas in Mathematics (basic logic, number theory, analysis, graph theory, game theory) Summer 2008

Teaching Assistant, University of Pennsylvania

Math 371: Abstract Algebra II, Fall 2010

Math 114: Calculus II, Spring 2009

Math 240: Calculus III, Fall 2008

Math 240: Calculus III, Spring 2008

Math 241: Calculus IV, Fall 2007

Mathematics/Maple Help Center Tutor, University of Pennsylvania,

For Math 240: Calculus III (Fall 2009), Math 241: Calculus IV (Spring 2010), All courses (Summer 2009)

Instructor for Preparation for Informatics/Programming Competitions: Gazi High School, Ankara Fall 2002. Performed the same duty as student at Ankara Ataturk Anatolian High School Spring and Fall 2001.

CONFERENCES
ATTENDED

Midwest Algebraic Geometry Graduate Conference, University of Wisconsin, Madison, October 2010

AGNES conference, University of Connecticut, Storrs, September 2010

AGNES conference, University of Massachusetts Amherst, April 2010

Workshop on Homological Mirror Symmetry and Related Topics, University of Miami, January 2010

Workshop on Homological Mirror Symmetry and Related Topics, University of Miami, January 2009

RTG Summer School: Geometry of Quantum Fields and Strings, Univ. of Pennsylvania, June 2009

Triangulated Categories and Singularities, Universität Paderborn, May 2009

i-MATH School on Derived Algebraic Geometry, Universidad de Salamanca, June 2010

Algebro-Geometric Derived Categories and Applications, Institute for Advanced Study, March 2008

Geometry of complex projective varieties and the Minimal Model Program, Institut Fourier, Grenoble, July 2007

Institute for Advanced Study/Park City Mathematics Institute: Summer Session on Low- Dimensional Topology, Park City, July 2006

Prospects in Mathematics, Durham University, December 2005

Harvey Mudd College Conference on Geometry, Algebra and Phylogenetic Trees, Claremont, October 2004

Institute for Advanced Study/Park City Mathematics Institute: Summer Session on Geometric Combinatorics, Park City, July 2004

COMPUTER SKILLS C, C++, Java, Matlab programming

LANGUAGES Turkish, English, French (all fluent)

REFERENCES

Tony Pantev, University of Pennsylvania
Dima Arinkin, University of North Carolina Chapel Hill
Ron Donagi, University of Pennsylvania
Murray Gerstenhaber, University of Pennsylvania (research and teaching)
Antonella Grassi, University of Pennsylvania (teaching)