

Tyler L. Kelly

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Other contact information and references available upon request

Education

- **University of Pennsylvania** Philadelphia, PA
PhD, Mathematics 2009 - Present
Anticipated graduation date: Spring, 2014.
Passed Orals: March 2011
Major: Complex Algebraic Geometry; Minor: Algebraic Topology
Thesis Advisor: Ron Donagi
- **University of Georgia** Athens, GA
MA Mathematics, BS Mathematics, AB Romance Languages 2005 - 2009
Summa Cum Laude, Highest Honors in Mathematics
Thesis: "Quiver Grassmannians and their Quotients by Torus Actions"
Thesis Advisor: Elham Izadi

Papers

- Mirror Quintics, Discrete Symmetries, and Shioda Maps (with Bini, Gilberto and van Geemen, Bert), *J. Algebraic Geom.* 21 (2012), 401-412. (arXiv:0809.1791)
- On Kostant's theorem for Lie algebra cohomology (with UGA VIGRE Algebra Group), *Cont. Math.* 478 (2008), 39-60.

Awards

- **National Science Foundation Graduate Research Fellow** 2009-
- **Benjamin Franklin Fellow** 2009-
- **Dean's Award for Distinguished Teaching by a Graduate Student** 2012
Top Teaching Award in the School of Arts and Sciences for a Penn Graduate Student
- **Penn Math Good Teaching Award** Fall 2011
Math 116 - Honors Calculus I
- **The Alan Jaworski Award** 2009
Awarded to one UGA Honors male student each year in the physical sciences.
- **Charles M. Strahan Scholar** 2008
Awarded to most outstanding mathematics junior at UGA.
- **Barry M. Goldwater Scholarship Honorable Mention** 2008

- **CURO Summer Research Fellow** 2008
Given stipend from UGA's Center for Undergraduate Research Opportunities to study Calabi-Yau threefolds at the Università di Milano
- **UGA Charter Scholar** 2005-2009
- **Honors Societies: Golden Key, Blue Key, Φ BK**

Talks and Presentations

- **Toric Geometry and mirror symmetry, II** May 3, 2012
Penn Toric Seminar Philadelphia, PA
- **Number of Faces on a Convex Simplicial Polytope** April 13, 2012
Penn Graduate Student Seminar Philadelphia, PA
- **Enigma Decryption in WWII** April 15, 2011
Penn Graduate Student Seminar Philadelphia, PA
- **Ample and Nef Divisors** February 3, 2011
Penn Graduate Algebra Seminar Philadelphia, PA
- **Mirror quintics and Shioda Maps** September 3, 2009
University of Georgia Algebraic Geometry Seminar Athens, GA

Synergistic Research History

(References available upon request)

- **Director's Summer Program** May 2009 - August 2009
- **UGA VIGRE Algebraic Geometry Group** January 2009 - May 2009
Under Angela Gibney Athens, GA
- **UGA CURO Summer Research Fellow** August 2007 - May 2008
Under Elham Izadi and Bert van Geemen Athens, GA and Milano, Italia
- **UGA VIGRE Algebraic Geometry Group** August 2007 - May 2008
Under Elham Izadi Athens, GA
- **Director's Summer Program** May 2007 - August 2007
- **UGA VIGRE Algebra Group** May 2006 - May 2007
Under Lenny Chastkofsky, Brian Boe, and Dan Nakano Athens, GA

Workshops Attended

- **Hodge Theory, Complex Geometry, and Representation Theory** June 2012
Texas Christian University Fort Worth, TX
- **UGA VIGRE Algebraic Geometry Summer School/Varleyfest** May 2012
University of Georgia Athens, GA
- **Workshop on Geometry and Arithmetic of K3 Surfaces and Calabi-Yau Threefolds** August 2011
Fields Institute, University of Toronto Toronto, ON, Canada

- **Strings Math 2011** June 2011
Penn Philadelphia, PA
- **Mathematical String Theory** June/July 2010
Virginia Tech Blacksburg, VA
- **Wall Crossing In Math and Physics** May 2010
UIUC Champaign, IL
- **Modern Moduli Theory** February 2009
MSRI Berkeley, CA

Teaching

- **Penn Center of Teaching And Learning Summer Mentor** Summer 2012
University of Pennsylvania, Mentor for Summer Math Instructors Philadelphia, PA
- **MATH 104 - Calculus, Part I** Spring 2012
University of Pennsylvania, TA for four sections Philadelphia, PA
- **MATH 116 - Honors Calculus** Fall 2011
University of Pennsylvania, TA for two sections Philadelphia, PA
- **MATH 170 - Ideas In Mathematics** Summer 2011
University of Pennsylvania, Instructor of Record Philadelphia, PA
- **Hill College House Tutor** Fall 2010, Spring 2011
University of Pennsylvania Philadelphia, PA
- **MATH 2200 - Analytic Geometry and Calculus** Fall 2008, Spring 2009
University of Georgia, TA for two sections each semester Athens, GA
- **HONS 1000H - Introduction to Honors** Fall 2007
University of Georgia, TA for one section Athens, GA

Service and Extracurricular Experience

- **Penn Undergraduate Math Major Mentor** September 2010 - Present
University of Pennsylvania Philadelphia, PA
- **Penn Graduate Student Seminar Co-coordinator** September 2010 - Present
University of Pennsylvania Philadelphia, PA
- **NSF Graduate Research Fellow Resource Person** August 2009 - Present
University of Pennsylvania Philadelphia, PA
- **Math Team Coach** September 2008 - May 2009
Clarke Central High School Athens, GA
- **Math Team Coach** September 2003 - May 2004
Northwestern Middle School Milton, GA

Other Information

- Languages:
 - Proficient in Spanish, French, C, L^AT_EX
 - Working knowledge of Italian, Java, Perl, Matlab, Maple
- American Mathematical Society Member
- University of Georgia Alumni Association
Philadelphia/Delaware Valley Chapter Vice President