

## TEACHING AND SERVICE

ANGELA GIBNEY

I am interested in increasing the numbers and the diversity of those who go into STEM fields, and to retain those who choose math for their career. Below I describe some of my efforts towards these goals, as well as list the courses I have taught.

### 1 Retention

#### Support for grad students and postdocs

I have participated in projects aimed at helping graduate students and recent PhD's, including:

- co-organizing conferences and workshops:
  - the Rutgers branch of the Algebraic Geometry Northeast Sectional meeting – AGNES– (with L.Borisov, A. Buch, and D.Krashen);
  - the 2016 Georgia Summer Workshop in Algebraic Geometry at UGA, with A. Deopurkar, J. Kass, and N. Tarasca);
  - the 2015 Bootcamp for the Algebraic Geometry Institute in Salt Lake City, Utah (co-organized with I.Coskun, M. Lieblich and T. DeFernex) <http://bit.ly/2cEuRjz>. Funding from NSF and NSA came through UGA;
  - the 2004 MRC Program in Snowbird, Utah (co-organized with D. Abramovich, and J. McKernan);
  - the Georgia Algebraic Geometry Symposium, now shared with Emory and Georgia Tech <https://sites.google.com/site/galgeoms2017/>;
  - the Graduate Student Mock AMS Conference at UGA, which helped train graduate students to give short talks as well as to provide a regular, community building activity where they give those talks and get to know each other.
- speaking at conferences and workshops for graduate students:
  - in June 2017, four invited lectures at GAeL, Géométrie Algébrique en Liberté, <http://gael-math.org/aboutgael>, in Bath, UK, organized by and for early career Algebraic Geometers;
  - 2005 Bootcamp <http://bit.ly/2cxTgXj>, held in Seattle.
  - 2002 Learning Stacks and Computational Methods through Problem Solving workshop at the University of Illinois at Urbana Champagne.
- being a Co-PI for NSF funded programs for grad student training:
  - RTG Grant (DMS-1344994) <http://bit.ly/2cW8iES>;
  - VIGRE Grant (DMS-0738586) <http://www.angelagibney.org/at-uga/>.

## Support for women in math

I am committed to doing what I can for female mathematicians at early stages in their career, and try whenever possible to accept invitations to speak or run mentoring events. Some of these include:

- speaking at conferences for female grad students and postdocs including the:
  - *Graduate workshop in Algebraic Geometry for Women Mathematics of Minority Genders*, at Harvard and MIT, in Boston, MASS, 2017;
  - *Women in Science Seminar* at the IAS Women’s program in Princeton, NJ. 2007;
- co-organizing conferences for women mathematicians, including:
  - In 2015, (with Linda Chen), a special session in Algebraic Geometry for the bi-annual AWM Research Symposium, held at U of MD;
  - In 2009, (with Diane Maclagan and Jessica Sidman), the Connections for Women Conference at MSRI for the Jumbo Session in Algebraic Geometry;
- joining in social events aimed primarily to support female math undergraduate students, graduate students and postdocs, including at UCLA, UPENN, and MIT;
- participating in AWM Chapter activities:
  - helping to start and run an AWM chapter at Rutgers in 2017;
  - From 2010 -2016, being faculty contact of an AWM Chapter at UGA;
  - From 2004-08 I was also a co-organizer with A. Grassi of AWM events at UPenn;
- being an Enhancing Diversity in Graduate Education mentor (EDGE)  
<http://bit.ly/2cW7j7I>.

## 2 Increasing diversity in the pipeline

Over my career, I have been involved in a number of “kids on campus” type programs, some of which include:

- with Daniel Krashen, designing and running UGA MathCamp <http://tossor.github.io/mathcamp/>, which brought local high-school students to the math department at UGA for one week of mathematical activities in the summer;
- at UGA, lecturing at the Summer Stem Academy <http://bit.ly/1PPQzKR>, for high school students;
- at the University of Michigan, helping with the King/Chavez/Parks College Day Visitation Program <http://bit.ly/2cxTdL5>, where 7th and 8th graders from inner city Detroit visited UM a day of activities to promote interest in STEM;

- as a graduate student at UT Austin, co-organizing the Saturday Morning Math Group, <https://www.ma.utexas.edu/users/smmg/>, facilitating presentations by faculty for high school students, and hands-on activity with the students; Kids came on busses from all over Austin, including from the poorest areas of town.

### 3 Current and Future Plans

I have the following projects underway:

- in May 2018, I will lecture at the *Strength In Numbers: a graduate workshop in number theory and related areas*, at Queen’s University, in Kingston, Ontario;
- in June 2018, I will deliver five invited lectures at the Geometry of Moduli Spaces of Curves Summer School, International Center for Theoretical Physics, Trieste, Italy.

A number of other outreach activities are listed on my CV.

### 4 Teaching Experience, Courses taught

Michigan	2000	116	Calculus III
	2001	216	Introduction to Differential Equations
		731	Topics in Algebraic Geometry (The Moduli Space of Curves)
	2002	115	Calculus I
		116	Calculus III
Yale	2003	480b	Introduction to Algebraic Geometry
	2004	115a	Calculus II
Penn	2004	370	Algebra I
	2005	371	Algebra II
		520	Graduate topics course (Moduli of stable maps)
	2006	624	Graduate algebraic geometry I
	2007	103	Introduction to calculus
		312/402	Advanced linear algebra
		625	Graduate algebraic geometry II
	2008	724	Graduate topics course (Introduction to moduli spaces)
UGA	2009	2250	Calculus I for Science and Engineering (2 sections)
		2260	Calculus II for Science and Engineering
		3000	Linear Algebra
		8850	Directed Collaborative Research (VRG)

	2010	4000/6000	Modern Algebra and Geometry I
		8330	Topics in Algebraic Geometry (Toric Varieties)
		7005/9005	Graduate Student Seminar (Mock AMS Conference)
	2011	2260	Calculus II for Science and Engineering (2 sections)
		7005/9005	Graduate Student Seminar (Mock AMS Conference)
		8850	Directed Collaborative Research (VRG, Spring and Fall)
	2012	8000	Graduate Algebra
		8850	Directed Collaborative Research (VRG) (2 semesters)
	2013	2250	Calculus I for Science and Engineering (2 sections)
		8850	Directed Collaborative Research (VRG)
	2014	2260	Calculus II for Science and Engineering (2 sections)
		8850	Directed Collaborative Research (VRG)
		8330	Topics Alg Geometry (Quantum Cohomology)
		9000	Doctoral Research
	2015	2260	Calculus II for Science and Engineering (2 sections)
		8310	Geometry of Schemes
		8850	Directed Collaborative Research (VRG)
		8800	Directed Reading and/or Projects
		9000	Doctoral Research
	2016	2260	Calculus II for Science and Engineering (2 sections)
		8330	Topics Alg Geometry (Conformal Blocks, Spring)
		8330	Topics Alg Geometry (Moduli of Curves, Fall)
		8800	Directed Reading and/or Projects
	2017	4010/6010	Modern Alg and Geometry
		9000	Doctoral Research
	2017	4010/6010	Modern Alg and Geometry
		9000	Doctoral Research
Rutgers	2017		History of Math
	2018		Graduate Commutative Algebra 2