

Amanda Beeson

Department of Mathematics and Statistics
Williams College

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EDUCATION	Massachusetts Institute of Technology B.S. in Mathematics with Computer Science <i>June 2003</i>
	University of California, San Diego M.A. in Pure Mathematics <i>Spring 2004</i> Ph.D. in Mathematics <i>June 2009</i>
RESEARCH	Algebraic and Analytic Number Theory: Stark conjectures, explicit class field theory, complex multiplication, modular units. AMS subject classifications: : 11G16, 11M06, 11M35, 11R04, 11R18, 11R20, 11R27, 11R29, 11R33, 11R34, 11R37, 11R42. Dissertation <i>Groups of Special Units</i> , under Professor H. Stark <i>June 2009</i>
AWARDS	GAANN Fellow <i>2003-2009</i> UCSD Mathematics Department Outstanding TA Award <i>Spring 2008</i>
APPOINTMENTS	Visiting Assistant Professor , Williams College <i>2009-2010</i> Currently teaching modular forms and two sections of calculus I; will teach discrete mathematics and calculus II in the Spring semester. Instructor , MIT Middle East Education Through Technology Program <i>Summer 2009</i> Taught Java, software engineering, JSPs/servlets, and databases to talented high school students. Associate Instructor , University of California, San Diego <i>Fall 2007</i> Taught precalculus course; wrote exams; oversaw TA and grader. Teaching Assistant , University of California, San Diego <i>2003-2008</i> Taught calculus, discrete math, vector spaces, abstract algebra, and number theory. Qual Prep Instructor , University of California, San Diego <i>Summers 2007-2008</i> Gave concise review of graduate algebra for qualifying exam preparation program; wrote practice qualifying exams. Adjunct Assistant Professor , University of San Diego <i>Fall 2008</i> Taught two college algebra courses. Associate Instructor , University of California, San Diego <i>Summer 2008, Winter 2009</i> Taught linear algebra course in the Summer quarter and differential equations in the Winter quarter; wrote exams; oversaw TA and MatLab sections; received 92% approval rating on student reviews. Teaching Assistant , Institute for Advanced Study, Princeton <i>Spring 2006</i> Taught zeta functions of graphs under Professor A. Terras at the Women and Mathematics Program. Counselor , PROMYS, Boston University <i>Summers 2002-2004</i> Helped organise all aspects of summer program in elementary number theory for talented high school students; led high school research groups; gave mini-courses, talks, review sessions; organised and participated in counselor learning seminars; held head counselor position in Summer 2004.

TALKS

- Almost Abelian Extensions**, Five Colleges Number Theory Seminar *December 2009*
Invited talk about the maximal almost abelian extension of an imaginary quadratic base field.
- Almost Abelian Extensions**, AMS Sectional Meeting, Boca Raton *November 2009*
Invited talk about the maximal almost abelian extension of an imaginary quadratic base field.
- Projective Geometry**, University of Connecticut *October 2009*
Invited Student Colloquium about projective geometry.
- Almost Abelian Extensions**, Williams College *September 2009*
Faculty seminar about the maximal almost abelian extension of an imaginary quadratic base field.
- Groups of Special Units**, University of California, San Diego *June 2009*
Dissertation defense.
- Group Cohomology**, University of California, San Diego *Winter 2008*
Series of talks given to graduate number theory students.
- Class Field Theory Seminar**, University of California, San Diego *2007-2008*
Gave talks on valuation theory, kummer theory, and the existence theorem.
- Pentagons and Permutations**, University of California, San Diego *February 2008*
Food for Thought seminar that provided a naïve introduction to modular forms through theta functions and a proof of Euler's Pentagonal Number Theorem.
- Modular Units**, University of California, San Diego *March 2007*
Advancement to candidacy.
- Graduate Learning Seminar**, University of California, San Diego *July 2006*
Discussed ramification, culminating in a proof of quadratic reciprocity.
- Multimodular Elimination**, University of California, San Diego *November 2005*
Graduate research seminar about algorithm for fast row reduction of a matrix with entries in an arbitrary number field.
- Bernoulli Numbers**, University of California, San Diego *June 2004*
GAANN talk regarding Bernoulli numbers and the Riemann zeta function.

SKILLS

Can program in Java, JSP/servlets, HTML, MatLab, Mathematica, pari; comfortable with unix/linux, Mac OSX, and Windows; can speak Spanish, some Dutch and German, and do a mean fake British accent; amateur photographer and baker.