

BIANCA VIRAY

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Education/Employment

PhD candidate University of California, Berkeley, Mathematics (advisor: Bjorn Poonen)
2005 B.S. University of Maryland, College Park, cum laude
Spring 2004 Budapest Semesters in Mathematics

Academic Honors

2007 – 2008 Mentored Research Award, University of California, Berkeley
2007 Honorable Mention, NSF Graduate Research Fellowship Program
2005 Honorable Mention, NSF Graduate Research Fellowship Program
2004 Omicron Delta Kappa, leadership and scholarship fraternity
2004 Higgenbotham Award (University of Maryland, College Park)

Research Interests

Algebraic number theory and arithmetic geometry.

Preprints

1. *Hilbert schemes of 8 points in \mathbb{A}^d* , with Dustin A. Cartwright, Daniel Erman, and Mauricio Velasco (submitted) arXiv:0803.0341.

Invited Talks

2008 June Algebraic Geometry Seminar, University of Warwick
 Hilbert schemes of 8 points
2008 Mar. Macaulay 2 Conference, Cornell University
 Hilbert schemes of points in affine space

Research Talks

2008 Apr. Algebra and Number Theory Seminar, University of Maryland College Park
 Existence of rational points on smooth projective varieties
2007 Oct. Baby Algebraic Geometry Seminar, Harvard/MIT
 The Hilbert scheme of 8 points in 4 space.

Expository Talks

2007 Oct. Modular Forms RIT, University of Maryland, College Park
 Hecke Algebras
2007 May Student Number Theory Seminar, UC Berkeley
 Rationally Connected Varieties
2006 Apr. Many Cheerful Facts, UC Berkeley Student Seminar
 Many Colorful Graphs

Conferences and Workshops Attended

- 2008 June Rational Points on Curves and Higher Dimensional Varieties
University of Warwick
- 2008 Mar. Macaulay 2 Conference
Cornell University
- 2007 Nov. Rational Curves and Diophantine Problems over Function Fields
Clay Mathematics Institute
- 2007 Aug. Summer School in Iwasawa Theory
McMaster University
- 2007 July Rational Points on Curves and Higher-Dimensional Varieties: Theory and Explicit Methods
Jacobs University
- 2007 Mar. Arizona Winter School: p -adic Geometry
University of Arizona
- 2006 Aug. Workshop on Computing with Modular Forms
Mathematical Sciences Research Institute
- 2006 Jan. Introductory Workshop in Rational and Integral Points on Higher-Dimensional Varieties
Mathematical Sciences Research Institute

Teaching Activities

- 2005 – 2007 Graduate Student Instructor, UC Berkeley
Calculus II, Linear Algebra and Differential Equations, Multivariable Calculus, Advanced Linear Algebra
- 2004 – 2005 Strauss Teaching Assistant, University of Maryland, College Park
Calculus I and II