

# Patrick Corn

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Department of Mathematics  
University of Georgia  
Athens, GA 30602-7403

corn@math.uga.edu  
<http://www.math.berkeley.edu/~corn>  
(614)546-8931

## Education

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- ▶ **University of California, Berkeley**  
Ph.D. in Mathematics, May 2005  
Thesis title: *Del Pezzo surfaces and the Brauer-Manin obstruction*  
Thesis advisor: Bjorn Poonen
- ▶ **Harvard University**  
A.B., mathematics, *Summa cum laude*, 1998

## Research Interests

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- ▶ **Algebraic geometry**: Rational points on varieties, explicit methods
- ▶ **Number theory**: Explicit methods in algebraic number theory

## Publications

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- ▶ **Del Pezzo surfaces and the Brauer-Manin obstruction**, Ph.D. thesis, U.C. Berkeley, 2005
- ▶ **Del Pezzo surfaces of degree 6**, *Mathematical Research Letters* 12 (2005), no. 1, 75–84  
Preprint: <http://arxiv.org/abs/math/0409428>
- ▶ **Classified report** (with Clifton Ealy, UC Berkeley), National Security Agency, August 1997

## Teaching

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- ▶ **Graduate Student Instructor**, University of Georgia
  - **Instructor**, Math 2200: Calculus, Fall 2005

Sole instructor for two classes of 35 students each; responsible for designing and administering lectures, exams, and homework, and assigning grades
- ▶ **Graduate Student Instructor**, University of California, Berkeley
  - **Instructor**, Math 185: Complex Analysis, Summer 2005
  - **Instructor**, Math 1A: Calculus, Summer 2004
  - **Instructor**, Math 1B: Calculus, Summer 2003

Sole instructor for a class of approximately 30 students; responsible for designing and administering lectures, discussion sections, exams, and homework, and assigning grades

- **Teaching assistant**, Statistics 21: Introductory Probability and Statistics for Business, Fall 2003

In addition to regular teaching assistant duties, designed worksheets for discussion sections and helped professor with administrative aspects of the course

- **Teaching assistant**, Statistics 20: Introduction to Probability and Statistics, Spring 2004
- **Teaching assistant**, Math 1A: Calculus (PDP), Spring 2003
- **Teaching assistant**, Math 1A: Calculus (PDP), Fall 2002
- **Teaching assistant**, Math 54: Linear Algebra and Differential Equations, Spring 2002
- **Teaching assistant**, Math 53: Multivariable Calculus, Spring 2000
- **Teaching assistant**, Math 1B: Calculus, Fall 1999

## Selected Presentations

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- ▶ *Del Pezzo surfaces and the Brauer-Manin obstruction*,  
Number Theory Seminar, University of Georgia, September-October 2005 (series of four talks)
- ▶ *Brauer-Manin obstructions on diagonal cubic surfaces*,  
Rational Points Seminar, UC Berkeley, September 2003
- ▶ *The 27 lines on a cubic surface*,  
from the workshop “Rational and Integral Points on Higher-Dimensional Varieties,”  
American Institute of Mathematics, Palo Alto, CA, December 2002
- ▶ *Dirichlet series and modular forms*,  
Modular Forms Seminar, UC Berkeley, February 2000

## Mathematical Activities and Professional Experience

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- ▶ **Participant**, “Méthodes explicites en théorie des nombres,” Institut Henri Poincaré, Paris, September 2004-December 2004, <http://www.ihp.jussieu.fr>
- ▶ **Graduate Student Instructor**, Professional Development Program (PDP), UC Berkeley, 2002-2003  
A program for disadvantaged students, with extra responsibilities for instructors, including: additional time for office hours and discussion sections, independent design of course materials to emphasize group work in sections, meetings with PDP officials  
Details at <http://www.aad.berkeley.edu/coalition/pdp.html>
- ▶ **Instructor**, Academic Summer Associates, UC Berkeley, Calculus, Summer 2001
- ▶ **Reader**, UC Berkeley (1999-2003): Complex Analysis, Galois Theory, Linear Algebra, Discrete Mathematics

- ▶ **Researcher**, Director's Summer Program, National Security Agency, Summer 1997  
Participants were given full security clearances and submitted reports on various problems of active interest to the National Security Agency
- ▶ **Teaching assistant**, Harvard University, 1995-1998: Complex Analysis, Algebra, Galois Theory, Linear Algebra, Multivariable Calculus, Calculus
- ▶ **Counselor**, Ross Young Scholars Program, Ohio State University, 1993-1995  
Details at <http://www.math.ohio-state.edu/ross/>

## Competitions

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- ▶ **Winner**, William Lowell Putnam Competition, 1997