

**Curriculum Vitae
John Thomas Bryk**

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Career Goals

I seek a position where teaching and research are balanced and, if possible, integrated with one another. I am interested in the study of mathematics education, particularly at the undergraduate level.

Education

•**Doctoral Candidate, Mathematics**

Rutgers University, degree expected Spring 2009

Advisor: Jerrold Tunnell

Thesis: *On the Numbers of Roots Modulo Primes of a Quintic Polynomial*

•**B.A., Mathematics and Economics**

Williams College, 2002

Graduated *cum laude*

Instructorships

□ *Rutgers University*

•Math 250, Introduction to Linear Algebra, Summer 2008

•Math 356, Theory of Numbers, Summer 2007

•Math 152, Calculus II for Math and Physical Sciences, Summer 2004

Teaching Assistantships

□ *Rutgers University*

•Math 152, Calculus II for Math and Physical Sciences, Fall 2007, Spring 2008, Fall 2008

Ran recitation in workshop format: students work in small groups on challenging problems.

Undergraduate Outreach

•**Directed Reading Program, Rutgers University, 2005-2007**

Advised undergraduates in advanced areas of studies through weekly meetings; helped students prepare talks at end of each semester; advised students in quadratic reciprocity, p -adic numbers, analytic number theory, group theory.

•**Undergraduate Honors Seminar, Rutgers University, Spring 2004**

Assisted in running honors seminar for undergraduates; helped students prepare weekly talks; covered elementary number theory leading up to equations over finite fields.

Research Interests

- Algebraic number theory; Artin representations and automorphic forms.

Publications

- Measurable dynamics of simple p -adic polynomials, with C. E. Silva, *American Math. Monthly* **112** (2005), no. 3, 212-232.
- Constructing Almost Excellent Unique Factorization Domains, with S. Mapes, C. Samuels, and G. Wang, *Communications in Algebra* **33** (2005), 1321-1336.

Conferences Attended

- Subconvexity bounds for L -functions**, *American Institute of Mathematics*, October 2006
- Number Theory and Random Matrix Theory**, *Rochester University*, June 2006
Attended week long school followed by week long conference; organized graduate student trip to Niagara Falls.
- Workshop on p -adic Dynamics**, *Wesleyan University*, May 2005

Selected Talks

- Rutgers Graduate Number Theory Seminar**
Selmer Groups and Class Groups, Spring 2007
Automorphic Forms on $SL(3, \mathbb{Z})$, Fall 2006
ABC Conjecture, Spring 2006
- Rutgers Graduate Pizza Seminar**
Gelfond-Schneider Theorem, Spring 2007
Dirichlet's Theorem on Arithmetic Progressions, Fall 2006
Ergodic Theory and Continued Fractions, Spring 2005

Scholarships and Support

- GAANN Fellow**, *Rutgers University*, 2006-2007
- MetroMath Research Fellow**, *Rutgers University*, 2005-2006
Interdisciplinary research group from New York City and Philadelphia area universities studying math education in urban schools; participated in study of the role of affect in the mathematics classroom; enrolled in mathematics education classes.
- Henry C. Torrey Graduate Fellow**, *Rutgers University*, 2003-2005

Service

- Faculty-Graduate Student Liaison Committee**, *Rutgers University*, 2007-2008
- Graduate Student Association Representative**, *Rutgers University*, 2003-2007

- Rutgers Graduate Number Theory Seminar Organizer**, *Rutgers University*, 2006-2007

Awards

- TA Teaching Award**, *Rutgers University*, Spring 2008
- Rosenberg Prize for Excellence in Mathematics**, *Williams College*, 2002

Relevant Work Experience

- Research Intern**, *Pitney Bowes, Shelton, CT*, Summer 2005
Studied encryption algorithms and formal cryptosystems.

Additional Information

- United States citizen
- Experience with Pari/GP, Prolog