

# Selin Kalaycıođlu

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Citizenship: Turkey

## Education:

- 2003–            *University of Arizona*, Tucson, AZ  
Ph.D. in Mathematics, May 2009 (expected)  
    Focus: *Computational Group Theory and Representation Theory*  
    Advisor: Dr. Klaus Lux
- 2003–2004      *University of Arizona*, Tucson, AZ  
M.S. in Mathematics, December 2004  
    Title: *Expander Graphs, Ramanujan Graphs and their Applications*  
    Advisor: Dr. Dinesh Thakur  
Passed qualifying examinations: August, 2006.  
Passed comprehensive oral examination: November, 2006.  
    Topic: Algorithmic methods in Modular Representation Theory.  
Passed computer examination: December, 2004.
- 1998–2002      *Yildiz technical University*, Istanbul, Turkey  
B.S. in Mathematics with Honors, December 2002  
    Thesis: *Green Functions*  
    Advisor: Dr. Seda Caliskan

## Academic Honors and Awards:

- Spring 2008      Daniel Bartlett Scholarship
- Fall 2007            The Outstanding TA Award, University of Arizona, Mathematics Department
- 1998-2002        The Prime Minister Merit Based Scholarship of Turkey

## Teaching Experience and Vertical Integration:

- Graduate Teaching Assistant, 2003-Present. Courses taught through Fall 2008:
  - College Algebra (x5)

- Precalculus
- Calculus II
- Linear Algebra (x2)
- Differential Equations (x2)(Held problem sessions)
- Teaching Assistant for the VIGRE Research Summer School in Computational Group Theory Summer 2008
- “Super TA,” Fall 2007, Spring 2008: Abstract Algebra.
- “Super TA,” Fall 2007, Spring 2008: Formal Mathematical Reasoning and Writing.
- Mentored an undergraduate project, Spring 2008: Math Modeling, Language Competition
- Senior Graduate Student Assistant for Graduate Integration Workshop (Summers, 2004 and 2006).
- High School Math Workshop on Cryptography (Presenter). Spring 2004.
- Summer Mathematics Camp at the University of Arizona. Summer 2004 (Counselor at 2 week long camp for mathematically talented middle school students)

**Funded Conference Attendances:**

- (Speaker) The Southwestern Group Theory Day - Tucson, AZ, November 8, 2008.
- (Participant) Groups and Computations V - Columbus, OH, March 17-21, 2008.
- (Participant) The Southwestern Group Theory Day - Tucson, AZ, October 27, 2007.
- (Speaker) 3rd International Conference on the Teaching of Mathematics - Istanbul, Turkey, June 30-July 5, 2006.

**Selected Coursework:** Algebraic Number Theory I and II, Complex Analysis I and II, Algebraic Coding Theory, Homological Algebra, Special Topics Course in Representation Theory and Character Theory, Microeconomic Theory, Business for Scientists

**Lectures/Talks Given:**

- *A new Method for finding the Projective Indecomposable Modules of large Groups.* Algebra and Number Theory Seminar. University of Arizona. November, 2008.
- *Computing the Projective Indecomposable Modules of large Groups.* The Southwestern Group Theory Day. University of Arizona. November, 2008.
- *The Meat-Axe.* The VIGRE Research Summer School. University of Arizona. July, 2008.
- *Group Representations in Probability and Statistics.* Group Theory Seminar. University of Arizona. October, 2007.
- *Determination of Socle Series using the Condensation Method.* Group Theory Seminar. University of Arizona. April, 2007.
- *Algorithmic Methods in Modular Representation Theory.* Oral Comprehensive Exam. University of Arizona. November, 2006.
- *What would you do?.* 3rd International Conference on the Teaching of Mathematics, Istanbul, Turkey. July, 2006.
- *Expander Graphs, Ramanujan Graphs and their Applications.* Masters Thesis Defense. University of Arizona. December, 2004.
- *Expander Graphs and the Zig-Zag Graph Product.* Mathematics Graduate Student Seminar, University of Arizona. October, 2004.