

# Daniel Katz

Brown University - Department of Mathematics

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## Education

BROWN UNIVERSITY, Providence, Rhode Island, USA

**Ph.D., Mathematics**, May 2009

Advisor: Joseph H. Silverman

Thesis: Sumfree Subsets in Cubes of Arbitrary Dimension

**M.S., Mathematics**, May 2005

Topics Exam: Graph Theory and Recursive Towers of Function Fields

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, Massachusetts, USA

**B.S., Mathematics (Theoretical Option)**, June 2003

**B.S., Humanities (Theater Arts)**, June 2003

## Employment

BROWN UNIVERSITY, Providence, Rhode Island, USA

**Senior Lecturer of Mathematics**, July 2018 to present

**Lecturer of Mathematics**, July 2012 to June 2018

GUILFORD COLLEGE, Greensboro, North Carolina, USA

**Assistant Professor of Mathematics**, August 2009 to May 2012

## Teaching Experience

**Brown University, Department of Mathematics, Lecturer/Senior Lecturer, 2012-present**

*[average enrollment (end of semester) of sections taught by me and of the full course in brackets]*

- MATH 90: Single-Variable Calculus I [97, 149]
- MATH 100: Single-Variable Calculus II [132, 206]
- MATH 170: Advanced Placement Calculus II [48, 61]
- MATH 180: Multivariable Calculus [90, 121]

**Guilford College, Department of Mathematics, Assistant Professor, 2009-2012**

- Elementary Statistics
- Elementary Functions
- Calculus I and II
- Multivariable Calculus
- Discrete Mathematics I and II
- Number Theory
- Linear Algebra
- Algebraic Structures

**Brown University, Department of Summer Studies, 2006-2009**

**Brown University, Department of Mathematics, Graduate Teaching Fellow, 2003-2009**

- Analytic Geometry & Calculus II
- Introductory Calculus I (for college students and for high school students)
- Advanced Placement Calculus
- Number Theory (for college students and for high school students)

## Research Interests

- Undergraduate Calculus Pedagogy and Technology
- Mathematics Related to Abstract Logic Puzzles
- Combinatorial and Additive Number Theory

## Refereed Publications

"On sumfree subsets of hypercubes," *Acta Arithmetica* 137.2 (2009), 139-153.

## Selected Presentations

Symposium for Undergraduates in the Mathematical Sciences, **Brown University**, March 2022: "Solvable Squares: Minimally Clued Latin Square Puzzles."

AMS Special Session on Teaching Assistant Development Programs: Why and How?, **Joint Mathematical Meetings**, January 2017: "Thirteen Hours: Graduate Student Teacher Training Under Time Constraints."

MAA Session on Graduate Students Teach Too: Ideas and Best Practices, **Joint Mathematical Meetings**, January 2016: "Teacher Training Revamped: Formalizing the Informal."

MAA Session on the Mathematics of Sudoku and Other Pencil Puzzles, **Joint Mathematical Meetings**, January 2012: "Critical sets in Futoshiki squares."

Mathematics Seminar, **University of North Carolina at Greensboro**, April 2010: "Sumfree Subsets of  $k$ -dimensional Cubes."

Combinatorial & Additive Number Theory Workshops, **City University of New York**, May 2008: "Sumfree subsets of hypercubes."

Graduate Student Seminar, **Brown University**, February 2007: "Plunnecke Graphs and Additive Combinatorics."

## Teaching and Advising Credentials

Dean's Award for Excellence in Teaching, Brown University

Advising Certificate Program, Guilford College

Mathematics Department Outstanding Teaching Award, Brown University

Teaching Certificate I, Harriet W. Sheridan Center for Teaching and Learning, Brown University

## Departmental and Professional Service

Math Department Calculus Placement Advisor, Brown University, Fall 2012 to present

Math Department Transfer Credit Liaison, Brown University, Spring 2015 to present

Member, Committee on Academic Standing, Brown University, Summer 2022 to present

Member, Departmental Diversity Action Committee, Brown University, Summer 2017 to Spring 2018

Member, Departmental Undergraduate Curriculum Committee, Brown University, Fall 2015 to Spring 2019

Member, Strategic Long Range Planning Committee, Guilford College, Fall 2010 to Spring 2012

Coordinator, Graduate Student Seminar, Brown University, Fall 2006 to Spring 2007