Erin Denette

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EDUCATION

University of Rhode Island, Kingston, RI

Ph.D. in Mathematics — **May 2016**

Thesis Advisor: Dr. Araceli Bonifant

Thesis Title: *Minimal Cantor Sets: The Combinatorial Construction of Ergodic Families and Semi-Conjugations*

M.S. in Mathematics — **May 2012**

Fitchburg State University, Fitchburg, MA

B.S. in Mathematics with distinction *Summa Cum Laude* — **May 2010**

Concentration in Secondary Education

Minor in Business Administration

TEACHING EXPERIENCE

Senior Lecturer — **July 2019 - present**

University of Rhode Island Department of Mathematics & Applied Mathematical Sciences

Lecturer — **July 2015 - June 2019**

University of Rhode Island Department of Mathematics & Applied Mathematical Sciences

Graduate Teaching Assistant — **August 2010-May 2015**

University of Rhode Island Mathematics Department

COURSES TAUGHT

Served as the sole instructor for all classes listed. Class sizes during the regular semester were typically 40-50 students with some large sections of 120-150 taught as lecturer.

MTH 099: Basic Algebra & Trigonometry
MTH 100X: Introductory & Intermediate Algebra
MTH 101: Intermediate Algebra
MTH 103: Applied Precalculus
MTH 108: Topics in Mathematics
MTH 111: Precalculus
MTH 131: Applied Calculus I
MTH 141: Calculus I
MTH 142: Calculus II
MTH 243: Multivariable Calculus
MTH 244: Differential Equations
MTH 362: Advanced Engineering Mathematics

In addition to having taught all of the above listed courses in a traditional face-to-face setting, I have also taught MTH 103, MTH 131, MTH 141, and MTH 244 asynchronously online. Furthermore, I have taught MTH 103 and MTH 131 synchronously online.

Other Experience

Mathematics Tutor   **May 2011-July 2015**
University of Rhode Island

   Provided tutoring for mathematics courses and the computer algebra system Mathematica.

Mathematics Tutor/Mentor   **Summers 2011-2015**
University of Rhode Island Talent Development Program

   Provided mathematics tutoring for the program, which provides financial assistance, preparatory
   summer classes, and mentoring to students of disadvantaged backgrounds who could not otherwise
   expect to be admitted to the university.

Mathematics Tutor   **September 2007-May 2010**
Fitchburg State University Academic Success Center

   Provided tutoring for undergraduate mathematics courses, the computer algebra system Maple,
   and the statistical software Minitab to the general student body and on an individual basis for
   students affiliated with the Multicultural Center and/or Disabilities Services.

Research Interests

Real dynamical systems, discrete dynamical systems, local and global behavior of difference equations,
topological dynamics, measurable dynamics, combinatorially obtained minimal Cantor sets.

Publications

1. E. Denette, M. Kulenović, and E. Pilav. *Birkhoff Normal Forms, KAM Theory and Time
   Reversal Symmetry for Certain Rational Map*, Mathematics **2016**, *4*, 20

2. E. Denette and B. Kaskosz, *Applied Precalculus*, 2020, `www.math.uri.edu/~bkaskosz/precalc/`

Presentations

Semi-Conjugation Between Certain Combinatorially Obtained Minimal Cantor Sets   November 2017
   MAA Northeastern Section Meeting in Fairfield, CT

Combinatorially Obtained Minimal Cantor Sets: Introduction and Recent Results   Spring 2017
Parts I, II, and III
   University of Rhode Island Dynamics Seminar

KAM Theory and Other Results Applied to a Certain System of Difference   November 2016
Equations
   AMS Fall Eastern Section Meeting in Brunswick, ME

Constructing Ergodic Families of Combinatorially Obtained Minimal Cantor Sets   January 2016
   Joint Mathematics Meetings in Seattle, WA

On Existence of a Semi-Conjugation Between Certain Combinatorially Obtained   January 2016
Minimal Cantor Sets
   Joint Mathematics Meetings in Seattle, WA

Birkhoff Normal Form and KAM Theory for a Certain System of Difference   November 2015
Equations
   AMS Fall Eastern Section Meeting in New Brunswick, NJ

The Construction of a Non-Uniquely Ergodic Minimal Cantor Set   January 2015
   Joint Mathematics Meetings in San Antonio, TX

The Construction of a Non-Uniquely Ergodic Minimal Cantor Set   October 2014

University of Rhode Island Difference Equations Seminar

OTHER CONFERENCES ATTENDED

- June 2019 MAA Spring Northeastern Section Meeting
- April 2019 AMS Spring Eastern Sectional Meeting
- June 2018 MAA Spring Northeastern Section Meeting
- June 2017 MAA Spring Northeastern Section Meeting
- January 2017 Complete College America Corequisite at Scale Rhode Island State Institute
- November 2016 MAA Fall Northeastern Section Meeting
- May 2015 IMS XXV celebrating 25 years of low-dimensional dynamics

ADMINISTRATIVE EXPERIENCE & SERVICE ACTIVITIES

Course Coordination
University of Rhode Island

Served as course coordinator for
- MTH 131: Applied Calculus I (Fall 2017-present)
- MTH 103: Applied Precalculus (Fall 2018-Spring 2019)

and course co-coordinator for
- MTH 243: Multivariable Calculus (Summer 2018)
- MTH 101: Intermediate Algebra (Spring 2017)
- MTH 100X: Introductory & Intermediate Algebra (Fall 2016-Spring 2017)
- MTH 108: Topics in Mathematics (Summer 2013)

Committee Service
University of Rhode Island

- College of Arts & Sciences Curriculum Committee (Fall 2018-present)
- College of Arts & Sciences Ad Hoc Committee on Success in Gateway Courses (Fall 2018-Spring 2019)
- Mathematics Department Undergraduate Curriculum Committee (Fall 2016-present)

Norwich University

- External member for Internal Review Board and Research Ethics Committee (Summer 2018-present)

Graduate Teaching Assistant Mentor   **September 2014-present**
Mentor/Supervisor, University of Rhode Island

Served as mentor to new graduate teaching assistants in the mathematics department. Periodically observed lectures and provided pedagogical feedback and support.

General Education Program   **Spring 2018**
University of Rhode Island

Served as faculty participant in the Math and Computational Assessment Academy and the faculty representative for MTH 131 at the General Education Course Fair.

Alumni Career Night   **February 2019**
Alumni Professional, Fitchburg State University

Served as an alumni panelist for a three-session career night including a panel discussion, networking, and a business dinner.

Open Source Calculus Team   **Spring 2018**
Member, University of Rhode Island

Part of a small team of faculty responsible for researching and evaluating open source materials, including WeBWorK assignments, for possible use in the calculus sequence.

URI Calc Bowl   April 2012-2017
Organizational Staff, University of Rhode Island

Recruited calculus students to participate in and helped run the Calc Bowl, a lively team-based calculus competition among groups of calculus students from URI and local high schools.

Co-Requisite Experiment Team   Fall 2016-Spring 2017
Member, University of Rhode Island

Served as co-coordinator of and instructor for an experimental college algebra course which followed a co-requisite model for remediation. The goal of the course was to help underprepared students succeed by providing additional support not typically given in other college algebra courses.

SPIN+ Program   September 2014-May 2016
Mentor/Liaison, University of Rhode Island

Served as mentor and interdepartmental liaison for a growing cohort of undergraduate students from underrepresented groups in the fields of Computer Science, Computer Engineering, and Mathematics who were selected to receive a scholarship from the Scholarship Program to Increase Numbers and Strengthen the Workforce in Technology and Mathematics (SPIN+).

Joint Mathematics Meetings   January 2016
Session Chair

Served as a session chair for the AMS Session on Dynamical Systems and Ergodic Theory II at the 2016 Joint Mathematics Meetings in Seattle, WA.

Precalculus Competency Exam Team   Fall 2013-Spring 2014
Administrator, University of Rhode Island

Worked in collaboration with the MTH 141 coordinator to create and administer Precalculus Competency Exams designed to ensure that students had the proper prerequisite knowledge.

COMAP Contest in Mathematical Modeling   February 2014
Advisor, University of Rhode Island

Served as the advisor to the university's undergraduate team for the Consortium for Mathematics and Its Applications (COMAP) Contest in Mathematical Modeling.

Northeast Regional Math Modeling Challenge   September 2013
Organizational Staff, University of Rhode Island

Jointly responsible for all local arrangements for a 24-hour mathematics modeling challenge.

OUTREACH ACTIVITIES

URI Summer Program for NECAP Preparedness   Summer 2013
Program Staff, University of Rhode Island

Part of a small team responsible for monitoring the online progress on selected objectives in Khan Academy of approximately 60 Cranston East High School students struggling with New England Common Assessment Program (NECAP) preparedness. Additionally organized and executed an initial visit to URI and a separate summer workshop at URI for these students.

AWARDS AND HONORS

- Beaupre Hope & Heritage Award (2014, 2015, 2016)

- Robert Sine Memorial Award for Excellence in Teaching Mathematics (2015)
- Who's Who Among Students in American Colleges and Universities (2010)
- President's List (2007-2010)
- Dean's List (2006-2010)
- Fitchburg State University Mathematics Department Scholarship (2009)
- Coast Guard Foundation Scholarship (2009)
- International Peer Tutor Certification by College Reading and Learning Association (2009)
- President's Scholar (2007, 2008)
- Pi Mu Epsilon National Mathematics Honor Society (inducted 2008)

Computer Skills

Extensive experience using the following for teaching and/or research purposes.

Computer Algebra Systems: Maple, Mathematica
Statistics Software: Minitab
Online Homework Systems: ALEKS, MyMathLab, WeBWorK, WileyPLUS
Ipad Educational Apps: ShowME, Explain Everything
Learning Management Systems: Sakai, Brightspace
Other: LaTeX, Microsoft Office, Excel

Professional Development Courses

- Basic Brightspace Training
- Online Pedagogy Training through Office for Advancement of Teaching & Learning (in progress Fall 2021)

Professional Affiliations

- American Mathematical Society (AMS)
- Mathematical Association of America (MAA)