

Bradley T. Forrest

Natural Sciences and Mathematics (609)-626-6860
Stockton University Office: B009a
101 Vera King Farris Dr. Bradley.Forrest@Stockton.edu
Galloway, NJ 08205

Employment *Associate Professor of Mathematics* September 2014 - Present
Stockton University

Assistant Professor of Mathematics September 2009 - August 2014
The Richard Stockton College of New Jersey

Visiting Lecturer September 2008 - August 2009
Cornell University

Teaching Assistant August 2002 - August 2008
Cornell University

Education *Ph. D. Mathematics, Cornell University* May 2009
Dissertation: Degree Subcomplexes in Outer Space and Ribbon Graph Complexes
Advisor: Dr. Karen Vogtmann

M.S. Mathematics, Cornell University May 2005

B.S. Mathematics and Physics, Harvey Mudd College May 2002
Graduated with High Distinction and Honors in Mathematics

Publications J. Belk and B. Forrest, *A Thompson Group for the Basilica*. Groups, Geometry, and Dynamics, 9, no. 4 (2015), 975-1000.

B. Forrest, *A Degree Theorem for the Space of Ribbon Graphs*. Topology Proceedings, 45 (2015) 31-51.

B. Forrest, P. Kosick, J. Vogel and C. Wu, *Mathematical Achievement of High School Students Through Community Partnership: A Red Balloon Initiative*. Teacher-Scholar: The Journal of the State Comprehensive University, 4, no. 1 (2012) 29-38.

B. Forrest, P. Kosick, J. Vogel and C. Wu, *Increasing Math Proficiency in High School Teaching: A Model for a College and Community Partnership*. The Journal of Public Scholarship in Higher Education, 2 (2012) 47-71.

H. Armstrong, B. Forrest, and K. Vogtmann, *A Presentation for $Aut(F_n)$* . Journal of Group Theory, 11 (2008) 267-276.

T.D. Donnelly, J. Hogan, A. Mugler, N. Schommer, M. Schubmehl, A.J. Bernoff, and B. Forrest, *An Experimental Study of Micron-scale Droplet Aerosols Produced via Ultrasonic Atomization*. Physics of Fluids, 16 (2004) 2843-2851.

Accepted B. Forrest and K. Teehan, *The Topology of Knight's Tours on Surfaces*, to appear in the Minnesota Journal of Undergraduate Mathematics.

J. Belk and B. Forrest, *Rearrangement Groups of Fractals*, to appear in Transactions of the American Mathematical Society.

Funded Grants

Stockton Coastal Collaborative in Mathematics. 2013-2015. Mathematics and Sciences Partnerships (MSP) project, Department of Education, New Jersey. #13-MS10-G07. Funded for \$906,750.

B. Forrest, *Academic Support for E-Learning (ASE)*. Awarded Fall 2013.

B. Forrest *Fellowship for Distinguished Students*. Advisor for 8 student projects. Fall 2011 to Present. \$7250.

B. Forrest, P. Kosick, and C. Wu, *High School Math Workshop*. Submitted for a Stockton Research and Professional Development grant in January 2011. Funded for \$7500.

Research Presentations

The Topology of Knight's Tours

- Columbus, OH (joint work with Kara Teehan)
Mathematical Association of America Math Fest, Contributed Session on Recreational Mathematics: Puzzles, Card Tricks, Games, Gambling, and Sports
August 2016

Rearrangements of Fractals and CAT(0) Cube Complexes

- Rutgers University (joint work with James Belk)
American Mathematical Society, Eastern Sectional Meeting, Special Session on Applications of CAT(0) Cube Complexes
November 2015

A Math Partnership Program: Redefining the Role of Higher Education

- Washington D.C. (co-presented with Judith Vogel and Chia-Lin Wu)
American Association of University Professors, Annual Conference on the State of Higher Education
June 2013

Mathematics Partnership Program - A Red Balloon Initiative

- Point Clear, AL (co-presented with Dennis Weiss and Judith Vogel)
American Association of State Colleges and Universities, Winter Academic Affairs Meeting
February 2013

A Thompson Group for the Basilica

- Cornell University
Topology and Geometric Group Theory Seminar
November 2012

P-adic and Universal Hyperbolic Solenoids

- Cornell University
American Mathematical Society, Eastern Sectional Meeting, Special Session on Geometric and Algebraic Topology
September 2011

Degree Subcomplexes of Outer Space

- University of Wisconsin - Stout
Mathematics Seminar March 2009
- New York University
American Mathematical Society, Eastern Sectional Meeting, Special Session on
Geometric Topology March 2008
- Binghamton University
Geometry and Topology Seminar February 2008
- Middle Tennessee State University
Department of Mathematical Sciences Seminar January 2008
- Cornell University
Topology and Geometric Group Theory Seminar September 2007

**Undergraduate
Presentations**

Dixit in Geometry for Teachers

- Stockton University
Day of Scholarship April 2016

How to be a Mastermind

- Stockton University
Pi Mu Epsilon Induction February 2016
- The Richard Stockton College of New Jersey
Physics Seminar October 2014
- The Richard Stockton College of New Jersey
Mathematics Seminar September 2014

A Thompson Group for the Basilica

- The Richard Stockton College of New Jersey
Mathematics Seminar October 2012

Graphs and Geometry

- The Richard Stockton College of New Jersey
Physics Seminar September 2011
Mathematics Seminar October 2009

Yes-No Voting Systems

- The Richard Stockton College of New Jersey
Physics Seminar February 2011
Mathematics Seminar March 2010
- Bard College
Mathematics, Computer Science and Physics Seminar April 2010

**High School
Presentations**

College? STEM? Why?

- Middletown North and South High Schools
STEM Pathway

May 2017

Yes-No Voting Systems

- Absegami High School
Professional Development

October 2013