Katherine Paullin

Curriculum Vitæ

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RESEARCH INTERESTS

3-Manifold Topology, Mathematics Education

EDUCATION

Ph.D. in Mathematics (May 2015)

Saint Louis University Advisor: David Letscher

Dissertation Title: "Spun Almost Normal Form"

M.S. in Mathematics (May 2009)

Illinois State University Advisor: Olcay Akman

Thesis Title: "Mary Had A Little Lamb: Using Genetic Algorithms to Create Music"

B.A. in Mathematics (May 2007)

Illinois State Teacher Certification for Mathematics, grades 6-12

Monmouth College

Professional Experience

Visiting Lecturer

Fall 2015-Spring 2016

 $Mathematics\ Department,\ University\ of\ Kentucky$

 $Lexington,\ KY$

Instructor
FastTrack Program, University of Kentucky

Summer 2015
Lexington, KY

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Mathematics and Computer Science Department, Saint Louis University

St. Louis, MO

Teaching Assistant

Research Assistant

Fall 2009-Spring 2013

Fall 2013-Spring 2015

Mathematics and Computer Science Department, Saint Louis University

St. Louis, MO

Instructor, Math Team Leader

Billiken Bridge to Success Program, Saint Louis University

Summers 2011-2014

St. Louis, MO

Adjunct Instructor

Summers 2011-2013

Mathematics Department, Southwestern Illinois College

Belleville, IL

Instructor Summer 2012

GRE Prep Course-Mathematics, McNair Scholars Program, Saint Louis University St. Louis, MO

Graduate Assistant

Fall 2007–Spring 2009

University College-Developmental Math, Illinois State University

Normal, IL

Student Teacher
Mathematics, Monmouth-Roseville High School

Spring 2007
Monmouth, IL

Teaching Assistant

Fall 2006

Mathematics Department, Monmouth College

Monmouth, IL

Courses Taught as Primary Instructor

At University of Kentucky

Spring 2016 MA 310: Mathematical Problem Solving for High School Teachers

MA 123: Elementary Calculus and Its Applications

Fall 2015 MA 123: Elementary Calculus and Its Applications

MA 111: Contemporary Mathematics

At Saint Louis University

Numbers in the right margin are student evaluations of the instructor overall, with ratings from 1–5 (where 1 is the best possible score).

| Spring 2013 | MATH 120: College Algebra | 1.79 |
|-------------|------------------------------|------|
| Fall 2012 | MATH 141: PreCalculus | 1.70 |
| Fall 2011 | MATH 132: Survey of Calculus | 1.36 |
| Spring 2011 | MATH 122: Finite Mathematics | 1.43 |
| Fall 2010 | MATH 120: College Algebra | 1.62 |
| Spring 2010 | MATH 122: Finite Mathematics | 1.73 |

At Southwestern Illinois College

Summer 2013 MATH 111: Liberal Arts Mathematics

MATH 112: College Algebra

Summer 2012 MATH 112: College Algebra

Summer 2011 MATH 191/BUS 205: Introduction to Statistics/Economic and Busi-

ness Statistics

MATH 114: Trigonometry

Presentations

Selected Talks

"Spinning Almost Normal Surfaces" talk to be presented at the Joint Mathematics Meetings, Seattle, WA. January 2016

"An Introduction to Normal Surface Theory and Spun Almost Normal Form" talk presented at Topology Seminar, University of Kentucky, Lexington, KY. December 2015

"Spun Almost Normal Form" talk presented at the Joint Mathematics Meetings, San Antonio, TX. January 2015

"Spun Normal and Spun Almost Normal Surfaces" talk presented at the Missouri section of the MAA, St. Louis, MO. March 2014

"Grad School 101" talk presented to students at Monmouth College as part of their Women in Science program, Monmouth College, Monmouth, IL. November 2013

"The Excluded Point Topology: An Introduction" talk presented at the joint meeting of the Missouri section of the MAA and the Missouri Mathematical Association of Two Year Colleges, Columbia, MO. April 2011

"Mary Had a Little Lamb: Using Genetic Algorithms to Create Music" talk presented at the Illinois section of the MAA, Peoria, IL. April 2009

Poster Presentations

"Spun Normal and Spun Almost Normal Surfaces" poster presented at the Graduate Student Association Research Symposium, Saint Louis University. April 2014

AWARDS AND HONORARIES

Research and Academic Honors

- 2015 Pi Mu Epsilon: National Mathematics Honor Society; Alpha Epsilon Lambda: National Graduate Student Honor Society
- 2007 Graduate Cum Laude; Honors Program Graduate
- 2006 Mortar Board; Kappa Delta Pi: National Education Honorary
- 2005 Blue Key
- 2004 National Society of Collegiate Scholars; Alpha Lambda Delta Honorary

Other Honors and Awards

- 2015 John J. Andrews Service Award-SLU Mathematics Department
- 2007 Alpha Xi Delta-Beta Epsilon Senior of the Year
- 2006 President of Alpha Xi Delta-Beta Epsilon Chapter
- 2005 Order of Omega: National Greek Honorary; Public Relations Vice President of Alpha Xi Delta-Beta Epsilon Chapter

DEPARTMENTAL AND UNIVERSITY SERVICE

Departmental Service

- Assistant Course Coordinator for MA 123 Elementary Calculus, University of Kentucky, Spring 2016
- Coordinator of TA Observations, University of Kentucky, Fall 2015
- Member of Planning Committee for Missouri MAA Section Meeting, Saint Louis University, Spring 2014
- Mathematics Representative to Graduate Student Association, Saint Louis University, 2013-2014
- Graduate Student Volunteer, Mathematical Abundance Conference celebrating Professor Emeritus Charles Vanden Eynden's 72nd Birthday, Illinois State University, April 2008

University Service

- Graduate Student Volunteer, Expanding Your Horizons Conference of St. Louis, March 2014 and 2015
- Student Evaluator for Postdoc Fellow Search, Reinert Center for Transformative Teaching and Learning, Saint Louis University, April 2014
- Member of Selection Committee, Brennan Summer Fellowship Awards for Doctoral Dissertations, Saint Louis University, Spring 2014
- Scots Ambassador, Monmouth College, 2004-2006

Other Professional Service

- Judge for AWM Graduate Student Poster Session, Joint Mathematics Meetings, January 2016
- Game Control Member, D.A.S.H. National Puzzle Hunt St. Louis, May 2015
- Chapter Life Advisor, Alpha Xi Delta-Epsilon Xi Chapter, University of Missouri-St. Louis, 2010-2011
- Philanthropy Advisor, Alpha Xi Delta-Kappa Chapter, University of Illinois at Urbana-Champaign, 2008-2009

Professional Development

Continuing Education

- Certificate in University Teaching Skills, presented by the Reinert Center for Transformative Teaching and Learning, Saint Louis University, December 2013
- Internship in College Teaching, course taken at Illinois State University, Fall 2008

Professional Memberships

- American Mathematical Society
- Mathematical Association of America
- Association for Women in Mathematics

REFERENCES

| Dr. David Letscher Associate Professor, Saint Louis University | letscher@slu.edu 314-977-2467 |
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| Dr. Erin Wolf Chambers Associate Professor, Saint Louis University | echambe5@slu.edu 314-977-7002 |
| Dr. erica Whitaker Lecturer, University of Kentucky | ewhitaker@uky.edu 859-257-6792 |
| Dr. T. Christine Stevens Professor Emerita, Saint Louis University Associate Executive Director, American Mathematical Society | stevensc@slu.edu 401-455-4130 |
| Dr. Russell Blyth Professor, Saint Louis University | blythrd@slu.edu 314-977-2458 |