Morgan Schreffler
Curriculum Vitae

University of Kentucky
Department of Mathematics
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United States Citizen
Born in Harrisburg, PA

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EDUCATION

- Ph.D. Program, Mathematics, University of Kentucky, expect to graduate May 2017.
  - Thesis Topic: Approximation of Solutions to the Mixed Problem on Lipschitz Domains
  - Thesis Advisor: Dr. Russell Brown
  - Written Exams passed January 2014
  - Oral Exam passed December 2014
- M.A., Mathematics, University of Kentucky, December 2013.
- B.A., Mathematics, Millersville University, Millersville, Pennsylvania, May 2011.
  - Minor: Philosophy
  - Cum Laude
  - Senior Thesis Topic: Fixed-Point Theorems in Topology and Geometry
  - Senior Thesis Advisor: Dr. Ronald Umble

RESEARCH INTERESTS

Mixed Problem, Robin Problem, Layer Potentials, Asymptotic Analysis, Sobolev Spaces

TEACHING EXPERIENCE

- 2011-Present *Teaching Assistant, University of Kentucky Department of Mathematics*
  - Primary Instructor of MA 109 (College Algebra), MA 111 (Introduction to Contemporary Mathematics), MA 112 (Trigonometry), and MA 114 (Calculus II).
  - Graded papers and led recitation sections for MA 113 (Calculus I), MA 114 (Calculus II), MA 123 (Elementary Calculus), and MA 213 (Calculus III).
- Summers of 2012, 2013, 2014, 2016, *Primary Instructor, Freshman Summer Program (FSP) through the Center for Academic Resources and Enrichment Services (CARES), University of Kentucky*
  FSP provides an opportunity for incoming freshmen in traditionally under-represented groups to live on campus, earn 6 college credits, and get accustomed to the college classroom and the resources available to aid student success. Through FSP, I was primary instructor for 16 students in College Algebra in 2012, 2014, and 2016, and in Introduction to Contemporary Mathematics in 2013. I also composed written midterm evaluations of each student's progress and participated in weekly staff meetings.

WORK EXPERIENCE

- Summer 2012, *Assisted in writing web homework, University of Kentucky*
  Proofread questions and tested answers to Calculus I and II problems for mathclass.org, a web-based homework system used at the University of Kentucky.

AWARDS AND HONORS

- Recipient of a *Max Steckler Fellowship*, 2011, awarded by the Graduate School of the University of Kentucky for the 2011-2012 academic year.
- Received 10 points in the *William Lowell Putnam Mathematical Competition*, December 2010.
- Awarded Course Honors (roughly equivalent to an A+) in MATH 393 (Number Theory) and MATH 566 (Complex Variables) at Millersville University.

SERVICE

- Co-chair, Math Department Graduate Student Council (GSC), *University of Kentucky* August 2013-May 2014. Responsibilities include representing the graduate student body at faculty meetings, hosting departmental teas, greeting and guiding visiting potential graduate students, and raising funds.
- Spring 2010-Spring 2011, *Tutor, Millersville University Athletics Department*
  Tutored student athletes in a group setting. Particularly, athletes with a C or lower in their current math class were required to spend two or more hours a week in my sessions. Courses covered include Algebra, Trigonometry, Calculus I and II, and Survey of Mathematical Ideas.
- Spring 2010-Spring 2011, *Tutor, Millersville University Office of Learning Services*
  Gave individual supplemental instruction to students with documented learning disabilities. Courses covered include Contemporary Math, Calculus, and Introductory Statistics.
- Spring 2008-Spring 2009, *Tutor, Harrisburg Area Community College*
  Tutored students in group and individual settings in the "Math Lab." Courses covered include Beginning, Intermediate, and College Algebra, Trigonometry, the Calculus sequence, and Linear Algebra.

MATHEMATICS CONFERENCES, PROGRAMS, AND PRESENTATIONS

- Presented *Proof of a Hardy Inequality on the Boundary of Lipschitz Domains* to the UK Math Department Analysis/PDE Seminar (October 15, 2013)
- Attended the *Fourth Ohio River Analysis Meeting* at the University of Kentucky (March 2014)
- Attended the *2014 NSF-CBMS Conference on Inverse Scattering and Transmission Eigenvalues* at the University of Texas at Arlington (May 27-31 2014)
- Presented *Solving the Mixed Problem on Lipschitz Domains by the Method of Layer Potentials* to the UK Math Department Analysis/PDE Seminar (December 2, 2014)
- Attended the *Fifth Ohio River Analysis Meeting* at the University of Cincinnati (March 2015)
- Attended the *Sixth Symposium on Analysis and PDEs* at Purdue University (June 1-4, 2015)
- Participated in the *IMA Mathematical Modeling in Industry Workshop* at the University of Minnesota (August 5-14, 2015)
- Attended the *Nineteenth Annual Rivière-Fabes Symposium on Analysis and PDE* at the University of Minnesota (April 15-17, 2016)
- Attended the *Seventy-Seventh Midwest PDE Seminar* at the University of Cincinnati (May 7-8, 2016)
- Attended *MAA MathFest 2016* in Columbus, OH (August 3-6, 2016)
- Presented *Generalized Functions* at the University of Kentucky (*Graduate Student Colloquium*, September 14, 2016)
- Presented *Approximation of Solutions to the Mixed Problem on Lipschitz Domains* at the University of Kansas (*Prairie Analysis Seminar*, September 16-17, 2016)
- Registered to present *Approximation of Solutions to the Mixed Problem on Lipschitz Domains* at Florida Gulf Coast University (*SEARCDE*, November 5-6, 2016)
- Will attend the *2017 Joint Mathematics Meetings* in Atlanta, GA (January 4-7, 2016)

COMPUTER SKILLS

- Have written code in BASIC, HTML, C++, Java, JavaScript, Python, Maple, and MATLAB.
- Proficient with LaTeX.
- Proficient in the use of Windows and Linux Operating Systems.

LANGUAGES

- English: fluent
- German: some reading knowledge
- Classical Greek: some reading knowledge

REFERENCES

- Dr. Russell Brown, Former Director of Graduate Studies and Current Chair of the Math Department
  Department of Mathematics
  University of Kentucky
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- Dr. Zhongwei Shen, College of Arts and Sciences Distinguished Professor
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- Dr. Peter Perry, College of Arts and Sciences Distinguished Professor
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