

CURRICULUM VITAE  
STACEY MUIR  
JANUARY 2024

**Address**

Stacey Muir  
Department of Mathematics  
The University of Scranton  
Scranton, PA 18510

**Current Position** Professor of Mathematics (tenured) at The University of Scranton. (August 2016 – present)

**Prior Full-Time Positions**

- Associate Professor of Mathematics (tenured) at the University of Scranton. (August 2010 – July 2016)
- Assistant Professor at the University of Scranton. (August 2004 – July 2010)

**Education**

- Ph.D. in Mathematics, University of Kentucky, May 2004.
- M.A. in Mathematics, University of Kentucky, December 1999.
- B.S. in Mathematics (summa cum laude, second major: psychology), Rockhurst College, May 1998.

**Research**

- Interests: Geometric function theory of one complex variable.
- Thesis: *Harmonic Mappings and Solutions of a Differential Equation Related to the de la Vallée Poussin Means*
- Publications (all refereed journal articles containing original mathematics research, authors alphabetical is the norm for math research):
  - S. Muir, Convolutions of Normalized Harmonic Mappings. *Comput. Methods Funct. Theory* **19** (2019), pp. 583 – 599.
  - S. Muir, Convex Combinations of Planar Harmonic Mappings Realized through Convolutions with Half-Strip Mappings. *Bull. Malays. Math. Sci. Soc.* **40** (2017), No. 2, pp. 857 – 880.
  - M. Dorff and S. Muir, A family of minimal surfaces and univalent planar harmonic mappings. *Abstract and Applied Analysis* (2014), Article ID 476061, 8 pages.
  - S. Muir, Harmonic mappings convex in one or every direction. *Comput. Methods Funct. Theory* **12** (2012), No. 1, pp. 221 – 239.
  - S. Muir, Weak subordination for convex univalent harmonic functions. *J. Math. Anal. Appl.* **348** (2008), No. 2, pp. 862 – 871.
  - S. Muir, Subordinate solutions of a differential equation, *Comput. Methods Funct. Theory* **7** (2007), No. 1, pp. 1 – 11.
- Under review:
  - S. Muir, Blaschke Products and Convolutions with a Slanted Generalized Half-Plane Harmonic Mapping, 11 pages.
- Professional Presentations:
  - *Blaschke Products and Local Univalence of Convolutions of Planar Harmonic Mappings*, invited, American Mathematical Society Western Regional Meeting, Fresno (May 2023).
  - *Local Univalence of Convolutions of Harmonic Mappings*, national Joint Mathematics Meeting (JMM), Boston (Jan. 2023).

- *Convolutions of Normalized Harmonic Mappings*, national JMM, Baltimore (Jan. 2019).
- *Properties of a Generalized Harmonic Bernardi Integral Operator*, national JMM, San Diego (Jan. 2018).
- *Convex Combinations of Planar Harmonic Mappings Realized through Convolutions with Half-Strip Mappings*, national JMM, Seattle (Jan. 2016).
- *Connecting Minimal Surfaces and Planar Harmonic Mappings*, Office of Research and Sponsored Programs Seminar Series, University of Scranton (Feb. 2013).
- *A Family of Minimal Surface Constructed by Lifting Univalent Planar Harmonic Mappings*, national JMM, San Diego (Jan. 2013).
- *Convolutions of Complex-valued Harmonic Mappings*, national JMM, Boston (Jan. 2012).
- *Construction of Complex-valued Harmonic Mappings Convex in One or Every Direction*, national JMM, New Orleans (Jan. 2011).
- *Weak Subordination for Convex Univalent Harmonic Functions*, national JMM, Washington, D.C. (Jan. 2009).
- *Subordination Results from a Differential Equation Related to the de la Vallée Poussin Means*, national JMM, San Antonio (Jan. 2006).
- *Subordinate Solutions of a Differential Equation*, national JMM, Atlanta (Jan. 2005).

### Selected Professional Development

- Awarded funding to run a faculty Clavius Seminar: JAIDE (Justice, Access, Inclusion, Diversity, and Equity) in STEM (Fall 2023 – present)
- Horizontal Alliance Leader in an NSF ADVANCE grant Advancing the Careers of Women in STEM (Science, Technology, Engineering, and Mathematics) at PUIs (Predominantly Undergraduate Institutions) through Professional Networks (Spring 2012 – Spring 2017). Awarded Teaching Enhancement Grant, 2014 – 2015, for participating in *AAC&U 2015 Network for Academic Renewal STEM Conference Crossing Boundaries: Transforming STEM Education 2015 conference*, Seattle (Nov. 2015).
- Joint Mathematics Meeting Mini-course: Developing Departmental Self-Studies, San Antonio (Jan. 2015)
- Clavius seminar participant, Plato's dialogues (2014/15 AY)
- Participant (as Rosenberg grant awardee) in AAUP Summer Institute, University of Washington (July 2013).
- Visiting Scholar, Brigham Young University, Provo, UT (Spring 2011).

### Courses Taught

- MATH 461: Complex Variables
- MATH 460: Topology
- MATH 446/447: Real Analysis I and II
- MATH 388H: Mathematical Modelling of Biological Systems (Honors Program Tutorial)
- MATH 384: Linear Optimization Special Topics Course
- MATH 361: Numerical Analysis
- MATH 351: Linear Algebra
- MATH 341: Differential Equations
- MATH 114, 221, 222: Calculus I, II, and III
- MATH 204: Elementary Statistics
- MATH 110X: Mathematics and Social Justice (First Year Seminar I designed.)

- MATH 106: Quantitative Methods I (College Algebra); MATH 107: Quantitative Methods II (First semester business calc); MATH 108: Quantitative Methods III (second semester business calc)
- MATH 105: Fundamentals of Geometric Math

#### Selected Service and other Professional Activities:

- Faculty Affairs Council (faculty union) Officer (Secretary: June 2018 – August 2019; Chair: August 2019 – present)  
In addition to day-in-and-day out union leadership responsibilities, I shepherded the faculty union through various rounds of contract negotiations and through the COVID pandemic, working cooperatively with administration to facilitate a re-opening of the university in Fall of 2020 and continuing to ensure safer working conditions for some time after as well.
- STEM representative on the General Education Review Committee (Fall 2020 – Spring 2023)
- Co-PI on NSF S-STEM grant, award amount \$645,814 (April 2018 – present)  
Work included such things as creating and running several workshop courses for our Royal Scholars supported through the grant, arranging for mentor pairs among the scholars, reviewing applicants annually, and participating in social events with the scholars.
- Invited external evaluator for Ph.D. thesis, National Institute of Technology Tiruchirappalli, (Spring 2023)
- Organizer of annual math competition ([Integration Bee](#)) for high school students (each Spring 2011 – 2019, Spring 2023 – present, break because of pandemic)
- Member Mathematical Association of America (MAA) Committee on Undergraduate Students (Jan. 2018 – Jan. 2020)
- Co-chair for MAA Committee on Undergraduate Students math competition subcommittee responsible for running an annual student competition at national JMM meetings (Jan. 2018 – Jan. 2020)
- Member of Faculty Senate Ad-Hoc Committee on General Education Goals (2013/14 AY)
- Co-Chair of Middle States Period Review Report subcommittee on Governance and Leadership, (Summer 2012 – Spring 2013).
- Faculty moderator of the Habitat for Humanity Campus Chapter (Fall 2006 - present).
- Mathematical Association of America CUSAC (Committee for Undergraduate Student Activities and Chapters) invited organizing subcommittee member for the Radical DASH student activity (January 2015 – January 2018)
- Professional talk *Peer Mentoring Alliances: Supporting Female STEM Faculty at Primarily Undergraduate Institutions* (based on role on NSF ADVANCE grant), at the national JMM, San Antonio (Jan. 2015).