

Curriculum Vitae of Daniel C. Sloughter

Education and positions

- Furman University
 - Professor (1996 -)
 - Associate Professor (1989 - 1996)
 - Assistant Professor (1986 - 1989)
- Santa Clara University
 - Assistant Professor (1983 - 1986)
- Boston College
 - Assistant Professor (1981 - 1983)
- Dartmouth College
 - Lecturer in Mathematics (1979 - 1981)
 - Ph.D (Thesis: Intrinsic integral representations and boundary theory for superharmonic measures of a random walk, 1981)
 - A.M. (1979)
- Gonzaga University
 - B.S., Honors (1977)

Courses taught

- Freshman level: calculus, statistics, ideas in mathematics, finite mathematics, first-year writing seminar (Masterpieces of Scientific Writing)
- Sophomore level: differential equations, linear algebra, vectors and matrices
- Junior/senior level: probability, statistics, real analysis, complex analysis, geometry, computational science, graph theory

Technical skills

- UNIX/Linux system administration
- Programming languages used: FORTRAN, C, PHP, Java, Dart, Asymptote, HTML
- Software used: R, Maxima, Mathematica, MATLAB/Octave, T_EX, L^AT_EX, Beamer

Furman Faculty Status Committee

- Chaired Faculty Status Committee (2017 - 2019)
- Committee oversees merit salary recommendations for all faculty, tenure and promotion recommendations, and all policies related to the professional welfare of the faculty

Presented papers

- “Hardy, Bishop, and making hay: choosing your axioms” Annual meeting of the Mathematical Association of America, San Diego, January 2018
- “Making philosophical choices in statistics” Annual meeting of the Mathematical Association of America, Seattle, January 2016
- “Insights gained and lost” Annual meeting of the Mathematical Association of America, San Antonio, January 2015
- “Philosophical and mathematical consideration of continua” Annual meeting of the Mathematical Association of America, San Diego, January 2013
- “The consequences of drawing necessary conclusions” Annual meeting of the Mathematical Association of America, Boston, January 2012
- “Being a realist without being a Platonist” Annual meeting of the Mathematical Association of America, San Francisco, January 2010
- “Should my philosophy of mathematics influence my teaching of mathematics” Summer meeting of the Mathematical Association of America, Portland, August 2009
- “Choosing or explaining” Presentation as part of a panel session on “The Intersection of the History and Philosophy of Mathematics”, Annual meeting of the Mathematical Association of America : Washington, January 2009
- “The De Continuo of Thomas Bradwardine” Annual meeting of the Mathematical Association of America : San Diego, January 2008
- “Realism and mathematics: Peirce and infinitesimals” Annual meeting of the Mathematical Association of America, Atlanta, January 2005
- “Reflections on Zeno’s paradoxes” Southeast regional meeting of the Mathematical Association of America, Clemson, March 2003
- “Peirce, Zeno, Achilles, and the Tortoise”, Annual meeting of the Mathematical Association of America, Baltimore, January 2003
- “An applet a day: simple calculus demonstrations using Java” Annual meeting of the Mathematical Association of America, Baltimore, January 1998
- “Computational science in a liberal arts setting” Annual meeting of the Mathematical Association of America, Orlando, January 1996
- “Peirce and Fisher on the place of probability in abductive inference” International Congress Henri Poincaré, Nancy, May 1994
- “Calculus within a modeling and computer oriented environment: content” Summer meeting of the Mathematical Association of America, Boulder, August 1989
- “Calculus within a modeling and computer oriented environment” (with Robert D. Fray) Annual meeting of the Mathematical Association of America, Phoenix, January 1989

- “Intrinsic integral representations of superharmonic measures” (with Charles D. Lahr) Annual meeting of the American Mathematical Society, San Francisco, January 1981

Books available online

- *A Primer of Real Analysis*, a real analysis text, available [here](#)
- *Yet Another Calculus Text, a short introduction to calculus using infinitesimals*, available [here](#)
- *The Calculus of Functions of Several Variables*, a multi-variable calculus text, available [here](#)
- *Difference Equations to Differential Equations*, a calculus text with interactive Java applets, available [here](#)

Articles and various publications

- “Making philosophical choices in statistics” in *Using the Philosophy of Mathematics in Teaching Mathematics*, edited by Bonnie Gold, Carl Behrens, and Roger Simons, MAA Notes, 2017
- “Peirce and Fisher on the place of probability in abductive inference” *Philosophia Scientiae*, Archives-Centre d’Etudes et de Recherche Henri Poincaré, vol. 1, no. 2, 1996 (available [here](#))
- “Statistical inference: small probabilities and errors” (available [here](#))
- “Peirce’s alternative Achilles paradox” (available [here](#))
- “Trigonometric Series Approximations” Java applet published in *Mathematical Sciences Digital Library*, Mathematical Association of America, 2002
- “Numerical Integration Rules” Java applet published in *Multimedia Educational Resource for Learning and Online Teaching*, 2002
- “Two-dimensional Random Walk” Java applet published in supplemental CD-ROM for *Mathematics of Data Management*, McGraw-Hill Ryerson, 2002
- Eight Java applets with associated sections from *Difference Equations to Differential Equations*: Published at *Math Tools*, a digital library of technology resources for mathematics education funded by the National Science Foundation, August 2002
- Abstract on calculus revision project: *Priming the Calculus Pump: Innovations and Resources*, MAA Notes Series # 17, 1990

Grants

- “Multimedia Computing and Scientific Visualization” Kresge Foundation, April 1995 (with Ken Abernethy, Bob Fray, and Frank Taylor)
- “Multimedia Computing and Scientific Visualization” Keck Foundation, August 1994 (with Ken Abernethy, Bob Fray, and Frank Taylor)
- “Introduction of Computational Science into the Undergraduate Curriculum at Furman University” National Science Foundation, May 1994 (with Hayden Porter and Frank Taylor)

- “Computer Algebra Systems in the Classroom” Carolinas & Ohio Science Education Network, October 1991
- “A Computer Laboratory for Calculus Reform” National Science Foundation, August 1989
- “Restructuring One Variable Calculus within a Modeling and Computer Oriented Environment” National Science Foundation, August 1988

Seminars and workshops attended

- “Philosophy of Experimental Inference: Induction, Reliability, and Error” National Endowment for the Humanities Seminar, Deborah Mayo, Virginia Polytechnic Institute and State University, 1999
- “Computational Science” National Science Foundation Workshop, North Carolina Supercomputer Center, Raleigh (1993)
- “Regional Institute in Dynamical Systems” National Science Foundation Workshop, Boston University, Boston (1990)
- “Frege and the Philosophy of Mathematics” National Endowment for the Humanities Seminar, Michael Resnik, University of North Carolina at Chapel Hill, 1988

Mellon Seminar

- “New Information Technology and Liberal Education” Participant and member of planning committee for joint seminar, with faculty from Wofford College and Furman University, 1999-2000
- Member of writing team for “New Information Technology and Liberal Education: A Manifesto”
- Member of organizing committee for the national symposium “New Information Technologies and Liberal Education”
- Guest editor, with James Inman, Hayden Porter, and William Rogers, “New Information Technology and Liberal Education: Issues and Options” in *The Journal of Electronic Publishing* (available [here](#))

Advisor for undergraduate research

- “Charles Sanders Peirce or the Consequences of a Hypothesis” Ivana Alexandrova, Pi Mu Epsilon National Meeting, Burlington, August, 1995
- “Infinity and the Continuum from the Perspective of Charles S. Peirce” Monique Swafford, National Conference of Undergraduate Research, Kalamazoo, May 1994
- “Infinity and the Continuum from the Perspective of Charles S. Peirce” Monique Swafford, Fifth Annual Pew-COSEN Scholars Summer Research Conference, Duke University, October 1993

Professional society positions

- American Association of University Professors
 - President of Furman Chapter (2002 - 2004, 2007 - 2008, 2014 - 2016)
 - Nominating Committee for the South Carolina Conference (2005)
 - Vice President of Furman Chapter (2000 - 2002)

- Mathematical Association of America
 - POMSIGMAA representative to PhilMath Archive (2017 -)
 - MAA Notes Editorial Board (2014 -)
 - AMS-MAA Joint Archives Committee (2013 - 2016)
 - Past-chair, Philosophy of Mathematics Special Interest Group (2015 - 2016)
 - Chair, Philosophy of Mathematics Special Interest Group (2013 - 2015)
 - Chair-elect, Philosophy of Mathematics Special Interest Group (2012 - 2013)
 - Program Director, Philosophy of Mathematics Special Interest Group (2010 - 2012)