

Curriculum Vitae for Benjamin R. Plumridge

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Education

- Ph.D., Mathematics, University of Tennessee, Knoxville, expected: May 2025
Thesis: *Regularization in Numerical Approximation of the Radiation Transport Equation*
Advisor: Cory Hauck, Ph.D.
Relevant Course Work: Numerical Analysis, Partial Differential Equations, Finite Element Analysis, Applied Linear Analysis, Real Analysis, Analysis of Artificial Neural Networks, Stochastic Modeling, Optimal Control Theory
- M.S., Applied and Computational Mathematics, West Chester University, 2018
- B.S., Physics, Minor in Mathematics, West Chester University, 2012

Research Interests

- Numerical analysis of partial differential equations
- Mathematical modeling in physics and biology

Skills

- Proficient in Python, Matlab, and SAS, experience with C and C++
- Error estimation of numerical schemes
- Knowledgeable in theory of partial differential equations
- Strong foundation in statistics

Work Experience

- Summer Intern at Lawrence Livermore National Laboratory, *An IMEX scheme for Thermal Radiative Transfer*, May-August 2023
- Graduate Research/Teaching Assistant, Department of Mathematics, University of Tennessee, Knoxville, 2018-present
Courses taught: Statistical Reasoning, Basic Calculus, Finite Mathematics, College Algebra
- Graduate Research Assistant, Department of Mathematics, West Chester University, 2016-2018
- Laboratory Assistant, Pathology Laboratory, Lankenau Hospital 2013-2017
- Food Service Assistant, Bryn Mawr Rehab Hospital 2005-2013

Awards and Honors

- WCU College of Science and Math poster session 3rd place (graduate division), 2018
- WCU College of Science and Math poster session winner (graduate division), 2017
- Awarded the Benjamin-Faber Scholarship for Math and Physics, 2011
- Member of Society of Physics Students, inducted in 2011
- Winner of West Chester University's Integration Bee, 2010

Presentations and Workshops

- Winter School in Machine Learning, University of Texas at Austin, January 2024
- SAMSI's Industrial Math/Stat Modeling Workshop for Graduate Students, North Carolina State University, *Translational Modeling of Irritable Bowel Syndrome*, July 2017
- Poster presentation at West Chester University's College of Science and Math Research Day, *Numerical Solution of the Semi-Classical Limit of the 1-D Non-linear Schrödinger Equation*, May 2018
- Presentation at Omega Design Cooperation, *Time Series Analysis with Omega Design*, December 2017
- Poster presentation at West Chester University's College of Science and Math Research Day, *Numerical Solution of the Semi-Classical Limit of the 1-D Non-linear Schrödinger Equation*, December 2017
- Poster presentation at West Chester University's Research Day, *Numerical Solution of the Semi-Classical Limit of the 1-D Non-linear Schrödinger Equation*, November 2017
- Poster presentation at West Chester University's Research Day, *A Comprehensive Model of Dorsal Closure*, May 2017
- West Chester University's Applied Mathematics Seminar, *A Comprehensive Model of Dorsal Closure*, April 2017
- Presentation at Stroud Preserve (Water Research Center), *Habitat Suitability for Brown Trout using Fuzzy Logic*, April 2017
- West Chester University's Applied Mathematics Seminar, *Habitat Suitability for Brown Trout using Fuzzy Logic*, March 2017