

Alec D. Wendland

Curriculum Vitae

The University of Connecticut
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Department of Mathematics
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Education

PhD (student) The University of Connecticut, Storrs, Connecticut (August 2021 – Present)
Preliminary Examinations: Numerical Analysis, Applied Mathematics, Real Analysis

B.S. Carroll University, Waukesha, Wisconsin (September 2017 – May 2021)
Major: Mathematics, Minor: Computer Science
Honors Program
Summa Cum Laude

Teaching Experience

The University of Connecticut

Teaching Assistant

MATH 2110Q, Multivariable Calculus (Fall 2022, Spring 2023)

MATH 1132Q, Calculus 2 (Spring 2022)

MATH 1131Q, Calculus 1 (Fall 2021)

Carroll University

Peer Educator

CMP112, Computational Thinking 1 (Spring 2021)

CMP114, Computational Thinking 2 (Spring 2021)

MAT207, Calculus 3 (Fall 2020)

MAT309, Ordinary Differential Equations (Fall 2020)

Conference Presentations

- [1] A. D. Wendland, “A combinatorial proof of the explicit representation of orthonormal Bernstein polynomials.” Presented at Carroll University’s Celebrate Carroll Academic Research Conference, Waukesha, WI (April 2020).

- [2] A. D. Wendland, “Numerical solutions to nonlinear boundary value problems using Bernstein polynomial reproducing kernel method.” Presented at Carroll University’s Celebrate Carroll Academic Research Conference, Waukesha, WI (April 2019).
- [3] A. D. Wendland, “Numerical solutions to nonlinear boundary value problems using Bernstein polynomial reproducing kernel method.” Poster session presented at the Joint Mathematics Meetings, Baltimore, MD (January 2019).

Works in Preparation

- [1] T. E. St. George and A. D. Wendland, *Bernstein reproducing kernel method for systems of nonlinear boundary value problems*. In preparation.
- [2] T. E. St. George and A. D. Wendland, *Two proofs of the explicit representation of orthonormal Bernstein polynomials*. In preparation.

Fellowships, Grants, and Awards

Summer Fellowship, The University of Connecticut, Summer 2022, \$5,000
 Alan and Linda Thompson Scholarship, Carroll University, presented to an undergraduate mathematics student recognizing hard work and achievement in the field, August 2020, \$2,500
 Mathematics Major of the Year, Carroll University, March 2019, May 2021
 Student Scholarly Travel Grant, Carroll University, December 2018, \$700
 Pioneer Scholar Grant, Carroll University, stipend provided to undergraduate students to engage in an intensive scholarly research project, March 2018, \$3,000
 Dean’s List, Carroll University, 2017, 2018, 2019, 2020, 2021
 National Merit Scholarship, Mead Witter Foundation, 2017, 2018, 2019, 2020, \$5,000
 Wisconsin Academic Excellence Scholarship, State of Wisconsin Higher Educational Aids Board, 2017, 2018, 2019, 2020, \$2,250.

Service

The University of Connecticut:

- Treasurer, Society for Industrial and Applied Mathematics Student Chapter (2021 – present)
- Participant, Speaker, and Co-organizer, UConn SIAM Student Chapter Reading Group in Calculus of Variations (Spring 2023)
- Participant, Speaker, and Co-organizer, UConn SIAM Student Chapter Reading Group in Numerical Analysis (Fall 2022)
- Participant, Speaker, and Co-organizer, UConn SIAM Student Chapter Reading Group in Ordinary Differential Equations (Spring 2022)

- Participant, Mathematics Continued Conference (October 23, 2021)

Carroll University:

- Vice President, Carroll University Mathematics Club (2020 – 2021)

Research Skills

Research experience includes ordinary differential equations and numerical techniques, numerical analysis, and convergence analysis of analytical solutions. Experienced in using MATLAB, Python, Julia, R, RStudio, Maple, Java, and LaTeX.

Professional Organizations

American Mathematical Society
Society for Industrial and Applied Mathematics