

Alec D. Wendland

Curriculum Vitae

The University of Connecticut
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Department of Mathematics
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Education

PhD (candidate) The University of Connecticut, Storrs, Connecticut (August 2021 – present)
Oral Examination: Γ -convergence and Aviles-Giga-type functionals
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

Publications

[1] T. E. St. George and A. D. Wendland, *Orthonormalization of a subset of Bernstein polynomial basis functions*, The PUMP Journal of Undergraduate Research **7** (2024), 258-273, DOI <https://doi.org/10.46787/pump.v7io.3765>.

Teaching Experience

The University of Connecticut

Primary Instructor

MATH 1071Q, Calculus for business and economics (Spring 2024, Spring 2025)

MATH 1020Q, Problem solving (Fall 2024)

Graduate Teaching Assistant

MATH 2210Q, Linear algebra (Summer 2025)

MATH 2110Q, Multivariable calculus (Fall 2022, Spring 2023, Summer 2023)

MATH 1132Q, Calculus 2 (Spring 2022)

MATH 1131Q, Calculus 1 (Fall 2021, Fall 2023)

Preliminary Examination Tutor

Applied mathematics (Summer 2023)

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)

Invited Talks

- [1] March 2023, The University of Connecticut, Mathematics Continued Conference
- [2] October 2023, The University of Connecticut, Geometric Analysis Student Seminar
- [3] May 2023, The University of Connecticut, Geometric Analysis Student Seminar
- [4] April 2020, Carroll University, Celebrate Carroll Academic Research Conference
- [5] April 2019, Carroll University, Celebrate Carroll Academic Research Conference
- [6] January 2019, Joint Mathematics Meetings, Undergraduate Poster Session, Baltimore, MD

Works in Preparation

- [1] A.W. and X. Yan, *Polar director structure of a continuum model of $SmAP_F$ phase of bent-core liquid crystals in thin planar cells with bias electric field.*

Fellowships, Grants, and Awards

Predoctoral Fellowship, The University of Connecticut, Spring 2025, \$8,078, stipend awarded as part of a 1/2 teaching assistantship during the spring 2025 semester

Summer Research Assistantship, The University of Connecticut, Summer 2024, supported by Dr. Matthew Badger's NSF DMS 2154047

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 and Other Work

The University of Connecticut:

- Reader, AP Calculus AB exam (2025)
- Mentor, Directed Reading Program, UConn Mathematics Department (Fall 2024)
- Vice President, Society for Industrial and Applied Mathematics Student Chapter (Fall 2024 – present)
- Treasurer, Society for Industrial and Applied Mathematics Student Chapter (Fall 2021 – Spring 2024)
- Participant, speaker, and co-organizer, UConn SIAM student chapter reading group in the 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)

Carroll University:

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

Professional Organizations

American Mathematical Society

Society for Industrial and Applied Mathematics

National Association of Rocketry