

CADE BALLEW

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cade-b.github.io

EDUCATION

University of Washington

- Ph.D. in Applied Mathematics 2021–2026 (Expected)
 - Advisor: Tom Trogdon.
- M.S. in Applied Mathematics 2021–2022

Rice University

- B.A., *magna cum laude* 2017–2021
 - Majors: Computational and Applied Mathematics; Mathematical Economic Analysis
 - Minor: Mathematics

PUBLICATIONS AND PREPRINTS

Publications

1. C. Ballew and T. Trogdon. A Riemann–Hilbert approach to computing the inverse spectral map for measures supported on disjoint intervals. *Studies in Applied Mathematics*, 152(1):31–72, 2024.

Preprints

1. C. Ballew and T. Trogdon. The Akhiezer iteration. *arXiv preprint 2312.02384*, 2023.

Software

1. C. Ballew and T. Trogdon. <https://github.com/cade-b/RecurrenceCoefficients.jl>, 2023.

INVITED TALKS

1. *Computing with orthogonal polynomials on disconnected domains*. SIAM PNW Biennial Meeting, Western Washington University, October 2023.

POSTERS

1. *Computing with orthogonal polynomials on disconnected domains: A Riemann–Hilbert approach*. Workshop on complex analysis: techniques, applications and computations, Isaac Newton Institute, July 2023.

CONFERENCE ORGANIZATION

1. Session co-organizer, SIAM PNW Biennial Meeting, Session on “Scientific Computing and Numerical Analysis”, Western Washington University, Bellingham, WA, October 2023.

TEACHING EXPERIENCE

University of Washington

- Teaching Assistant, CFRM 507 (Optimization Methods in Finance), Autumn 2021, Autumn 2022.
- Teaching Assistant, AMATH 567 (Applied Complex Analysis), Autumn 2023.

Rice University

- Grader, CAAM 336 (Differential Equations in Science and Engineering), Spring 2019.

SERVICE

- SIAM UW Student Chapter
 - Vice President 2022–2023
 - Outreach Coordinator 2023–2024
- Numerical Analysis Research Club
 - Student organizer Spring 2023, Autumn 2023

AWARDS

- Wan Fellowship 2021–2024
- Phi Beta Kappa 2021
- Peter Mieszkowski Prize for Honors Program Research 2021
- Malcolm Gillis Award in Mathematical Economic Analysis 2021
- Honors in Economics 2021
- Louis J. Walsh Scholarship 2020–2021
- Michael D. Maher RISE Award in Economics 2020
- Rice University President's Honor Roll (5 semesters)