

HYOJEONG SON

Contact Information

hjson@uw.edu
hyojeong-son.github.io

Education

- 2021 – 2026 (Expected) **Ph.D.** in Mathematics, University of Washington (UW)
Advisor: Christopher Hoffman
- 2019 – 2021 **A.M.** in Mathematics, Washington University in St. Louis (WashU)
Advisor: Renato Feres
- 2015 – 2018 **B.S.**, Stony Brook University
B.S. in Mathematics and Applied Mathematics & Statistics; minor in Computer Science

Preprints

- 2025 Christopher Hoffman, Avi Levy, Elchanan Mossel, and Hyojeong Son.
Stable Matchings with Correlated Preferences.
- 2025 Christopher Hoffman, Jacob Richey, and Hyojeong Son.
Local Density of Activated Random Walk on \mathbb{Z} .
- 2024 Madeline Brown, Christopher Hoffman, and Hyojeong Son.
Supercritical Activated Random Walk on \mathbb{Z} is Explosive.
Submitted to the Annals of Applied Probability

Publications

- 2021 Robert Hough and Hyojeong Son.
Cut-off for Sandpiles on Tiling Graphs. **Annals of Probability** 49(2), 671–731
- 2021 Robert Hough and Hyojeong Son.
The Spectrum of the Abelian Sandpile Model. **Mathematics of Computation** 90(327), 441–469

Awards & Honors

- 2024 Lisa Tanzi and Charles Egerton Endowed Graduate Fellowship
Department of Mathematics, University of Washington
- 2015 – 2018 Undergraduate awards: Academic Excellence Scholarships; Undergraduate Recognition Award; Summer Math Scholarship

Talks

- June 2025 CRM–PIMS Summer School in Probability, Vancouver, Canada
Self-Organized Criticality
- March 2025 Cornell Probability Seminar, Ithaca, NY
Self-Organized Criticality
- February 2025 University of Washington Graduate Student Analysis Seminar, Seattle, WA

	Stable Matching
December 2024	University of Washington Graduate Student Analysis Seminar, Seattle, WA Universality for Self-Organized Criticality
September 2024	University of Washington General Examination Talk, Seattle, WA Stable Matching

Mentorship

Winter 2025 – Present	Washington Experimental Mathematics Lab (WXML), UW Mentoring undergraduates estimating critical exponents for activated random walks on various lattices
Spring 2024	Washington Experimental Mathematics Lab (WXML), UW Mentored undergraduates on projects involving voting data, map analysis, and ecological inference in the Yakima Valley
Spring 2021	Graduate Student-Led Reading Program, WashU Led a reading group for mathematics undergraduates focused on sandpiles

Teaching

Instructor, University of Washington

Math 394	Probability I Summer 2025
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Teaching Assistant, University of Washington

Math 111	Algebra Fall 2022
Math 125	Calculus II Fall 2021, Winter 2022, Fall 2023
Math 126	Calculus III Spring 2022, Summer 2022
Math 207	Differential Equations Winter 2023, Spring 2023
Math 394	Probability I Winter 2024, Fall 2024, Spring 2025
Math 395	Probability II Spring 2024, Winter 2025
Math 491	Stochastic Processes and Option Pricing Fall 2025

Teaching Assistant, Washington University in St. Louis

Math 131	Calculus I Fall 2020
Math 217	Differential Equations Spring 2021