

Christian Serio

CONTACT INFORMATION	Department of Mathematics 450 Jane Stanford Way Building 380, 381D Stanford, CA 94305	cdserio@stanford.edu
WEBSITE	https://cdserio.github.io	
MATHEMATICAL INTERESTS	Probability theory and mathematical/statistical physics: scaling limits, universality, Gibbs measures, line ensembles, random polymers, spin systems.	
EDUCATION	Stanford University (2021–present) PhD Candidate in Mathematics Advisor: Amir Dembo Columbia University (2017–2021) BA in Mathematics with Honors, summa cum laude, Phi Beta Kappa	
PUBLICATIONS AND PREPRINTS	<ul style="list-style-type: none">□ “The pinned half-space Airy line ensemble,” with E. Dimitrov and Z. Yang. Submitted.□ “The half-space KPZ line ensemble and its scaling limit,” with S. Das. Submitted.□ “Scaling limit and tail bounds for a random walk model of SOS level lines,” with M. Hegde and Y. H. Kim. Submitted.□ “Convergence to stationary measures for the half-space log-gamma polymer,” with S. Das. <i>J. Funct. Anal.</i> 289(4): 110982 (2025).□ “Uniform convergence of Dyson Ferrari–Spohn diffusions to the Airy line ensemble,” with E. Dimitrov. <i>Ann. Inst. H. Poincaré Probab. Statist.</i> 61(1): 385-402 (2025).□ “Scaling limit for line ensembles of random walks with geometric area tilts.” <i>Electron. J. Probab.</i> 28: 1-14 (2023).□ “Tightness of discrete Gibbsian line ensembles.” <i>Stoch. Process. Their Appl.</i> 159: 225-285 (2023).□ “Tightness of Bernoulli Gibbsian line ensembles,” with E. Dimitrov, X. Fang, L. Fesser, C. Teitler, A. Wang, and W. Zhu. November 2021. <i>Electron. J. Probab.</i> 26: 1-93 (2021).	
INVITED TALKS	<ul style="list-style-type: none">□ Joint Mathematics Meetings, Special Session on Random Tilings, Random Permutations, and Particle Systems, Washington, DC, January 2026.□ Northeast Probability Seminar, CUNY, November 2025.□ Los Angeles Probability Forum, November 2025.□ University of Chicago, Probability Seminar, October 2025.□ Columbia University, Probability Seminar, October 2025.□ University of Utah, Stochastics Seminar, March 2025.□ Stanford University, Probability Seminar, October 2023.□ Columbia University, Columbia Probability Workshop, May 2023.	
FELLOWSHIPS AND AWARDS	<ul style="list-style-type: none">□ ARCS Scholar Award, Northern California Chapter of the ARCS Foundation. 2024–2026.□ John Dash Van Buren Jr. Prize in Mathematics, Columbia College, April 2021. Awarded to one student for an outstanding senior thesis, “Tightness of discrete Gibbsian line ensembles.”	

	<ul style="list-style-type: none"> ❑ Van Amringe Mathematical Prize, Columbia Mathematics Department, May 2020. Awarded to the student deemed most proficient in their class in designated mathematical subjects.
ACADEMIC PROGRAMS	<ul style="list-style-type: none"> ❑ Advances in Probability Theory and Interacting Particle Systems. Harvard University (Aug 26-28, 2024). Participant. ❑ Virginia Integrable Probability Summer School. University of Virginia (Jul 8-19, 2024). Participant. ❑ Universality & Integrability in KPZ. Columbia University (Mar 11-15, 2024). Participant. ❑ Seminar on Stochastic Processes. University of Arizona (Mar 8-11, 2023). Poster presenter. ❑ Random Media & Large Deviations. Courant Institute (Oct 21-24, 2022). Participant. ❑ University of Michigan Summer School on Random Matrices (Jun 13-24, 2022). Participant. ❑ Columbia University Mathematics REU, Summer 2020. Participant in Evgeni Dimitrov's "Asymptotics of Bernoulli Gibbsian line ensembles" research group. ❑ Columbia University Mathematics REU, Summer 2019. Participant in Kyle Hayden's "Surgery on knots and exotic phenomena in 3- and 4-manifolds" research group.
TEACHING EXPERIENCE	<ul style="list-style-type: none"> ❑ TA at Stanford, MATH 63DM: Modern Mathematics Discrete Methods, Spring 2024, 2025 ❑ CA at Stanford, MATH 151: Intro to Probability Theory, Winter 2024 ❑ TA at Stanford, MATH 53: Ordinary Differential Equations, Winter 2023 ❑ CA at Stanford, MATH 136: Stochastic Processes, Fall 2022 ❑ CA at Stanford, MATH 158: Basic Probability and Stochastic Processes with Engineering Applications, Spring 2022 ❑ CA at Stanford, MATH 19: Calculus I, Fall 2021 ❑ TA at Columbia, MATH UN1201: Calculus III, Summer 2020 ❑ TA at Columbia, MATH GU4061–4062: Intro to Modern Analysis I & II, Spring 2019–Spring 2021
SERVICE	<ul style="list-style-type: none"> ❑ Referee for <i>Probability Theory and Related Fields</i>, 2025. ❑ Referee for <i>Annals of Probability</i>, 2024. ❑ Referee for <i>Forum of Mathematics: Sigma</i>, 2024. ❑ Referee for <i>Probability and Mathematical Physics</i>, 2024. ❑ Organizer for Stanford Student Probability Seminar, Fall 2022–Spring 2024. ❑ Columbia University Mathematics REU, Summer 2021. Graduate student mentor for Carsten Chong's "Hurst index estimation under measurement errors" undergraduate research group.
REFERENCES	<p>Amir Dembo, Professor, Mathematics Department, Stanford University, adembo@stanford.edu.</p> <p>Ivan Corwin, Professor, Mathematics Department, Columbia University, ic2354@columbia.edu.</p> <p>Alan Hammond, Professor, Mathematics Department, University of California, Berkeley, alanmh@stat.berkeley.edu.</p> <p>Evgeni Dimitrov, Assistant Professor, Mathematics Department, University of South-</p>

ern California, edimitro@usc.edu.

Tadashi Tokieda, Professor, Mathematics Department, Stanford University,
tokieda@stanford.edu. (Teaching reference)