

## Christian Serio

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CONTACT INFORMATION	Department of Mathematics 450 Jane Stanford Way Building 380, 381D Stanford, CA 94305	cdserio@stanford.edu
WEBSITE	<a href="https://cdserio.github.io">https://cdserio.github.io</a>	
MATHEMATICAL INTERESTS	Probability theory and mathematical/statistical physics: scaling limits, universality, Gibbs measures, line ensembles, random polymers, spin systems.	
EDUCATION	<b>Stanford University</b> (2021–present) PhD Candidate in Mathematics Advisor: Amir Dembo  <b>Columbia University</b> (2017–2021) BA in Mathematics with Honors, summa cum laude, Phi Beta Kappa	
PUBLICATIONS AND PREPRINTS	<ul style="list-style-type: none"><li>❑ “Half-space KPZ line ensemble,” with S. Das. In preparation.</li><li>❑ “Scaling limit and tail bounds for a random walk model of SOS level lines,” with M. Hegde and Y. H. Kim. Submitted.</li><li>❑ “Convergence to stationary measures for the half-space log-gamma polymer,” with S. Das. To appear in <i>Journal of Functional Analysis</i>.</li><li>❑ “Uniform convergence of Dyson Ferrari-Spohn diffusions to the Airy line ensemble,” with E. Dimitrov. To appear in <i>Annales de l’Institut Henri Poincaré</i>.</li><li>❑ “Scaling limit for line ensembles of random walks with geometric area tilts.” <i>Electronic Journal of Probability</i> 28: 1-14 (2023).</li><li>❑ “Tightness of discrete Gibbsian line ensembles.” <i>Stochastic Processes and Their Applications</i> 159: 225-285 (2023).</li><li>❑ “Tightness of Bernoulli Gibbsian line ensembles,” with E. Dimitrov, X. Fang, L. Fesser, C. Teitler, A. Wang, and W. Zhu. November 2021. <i>Electronic Journal of Probability</i> 26: 1-93 (2021).</li></ul>	
INVITED TALKS	<ul style="list-style-type: none"><li>❑ University of Utah, Stochastics Seminar, March 2025.</li><li>❑ Stanford University, Probability Seminar, October 2023.</li><li>❑ Columbia University, Columbia Probability Workshop, May 2023.</li></ul>	
FELLOWSHIPS AND AWARDS	<ul style="list-style-type: none"><li>❑ ARCS Scholar Award, Northern California Chapter of the ARCS Foundation. Fall 2024–present.</li><li>❑ 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.”</li><li>❑ Van Amringe Mathematical Prize, Columbia Mathematics Department, May 2020. Awarded to the student deemed most proficient in their class in designated mathematical subjects.</li></ul>	
ACADEMIC PROGRAMS	<ul style="list-style-type: none"><li>❑ Advances in Probability Theory and Interacting Particle Systems. Harvard University (Aug 26-28, 2025). Participant.</li><li>❑ Universality &amp; Integrability in KPZ. Columbia University (Mar 11-15, 2024). Participant.</li></ul>	

- ❑ 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

- ❑ TA at Stanford, MATH 63DM: Modern Mathematics Discrete Methods, Spring 2024
- ❑ 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

- ❑ Referee for *Annals of Probability*, Fall 2024–present.
- ❑ Referee for *Forum of Mathematics: Sigma*, Winter 2024–present.
- ❑ Referee for *Probability and Mathematical Physics*, Winter 2024–present.
- ❑ 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

**Amir Dembo**, Professor, Mathematics Department, Stanford University, [adembo@stanford.edu](mailto:adembo@stanford.edu).

**Ivan Corwin**, Professor, Mathematics Department, Columbia University, [ic2354@columbia.edu](mailto:ic2354@columbia.edu).

**Evgeni Dimitrov**, Assistant Professor, Mathematics Department, University of Southern California, [edimitro@usc.edu](mailto:edimitro@usc.edu).