

Christian Serio

- CONTACT INFORMATION Department of Mathematics cdserio@stanford.edu
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Stanford, CA 94305
- WEBSITE <https://cdserio.github.io>
- MATHEMATICAL INTERESTS Probability theory and mathematical/statistical physics: scaling limits, universality, Gibbs measures, line ensembles, spin systems, random polymers.
- 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 “Convergence to stationary measures for the half-space log-gamma polymer,” with S. Das. Submitted.
 “Uniform convergence of Dyson Ferrari-Spohn diffusions to the Airy line ensemble,” with E. Dimitrov. To appear in *Ann. Inst. H. Poincaré Probab. Statist.*
 “Scaling limit for line ensembles of random walks with geometric area tilts.” *Electron. J. Probab.* 28: 1-14 (2023).
 “Tightness of discrete Gibbsian line ensembles.” *Stoch. Process. Their Appl.* 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. *Electron. J. Probab.* 26: 1-93 (2021).
- INVITED TALKS Stanford University, Probability Seminar, October 2023.
 Columbia University, Columbia Probability Workshop, May 2023.
- ACADEMIC PROGRAMS 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, conference in honor of Ofer Zeitouni’s 60th birthday. 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.
- ACADEMIC AWARDS 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.”

- ❑ Van Amringe Mathematical Prize, Columbia Mathematics Department, May 2020. Awarded to the student deemed most proficient in their class in designated mathematical subjects.

TEACHING
EXPERIENCE

- ❑ CA 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 *Forum of Mathematics: Sigma*, Winter 2024-present.
- ❑ Referee for *Probability and Mathematical Physics*, Winter 2024-present.
- ❑ Organizer for Stanford Student Probability Seminar, Fall 2022-present.
- ❑ 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.

Ivan Corwin, Professor, Mathematics Department, Columbia University, ic2354@columbia.edu.

Evgeni Dimitrov, Assistant Professor, Mathematics Department, University of Southern California, edimitro@usc.edu.