Morris Ang

EMPLOYMENT

University of California, San Diego
Assistant Professor — *July 2024 – present*

Columbia University
Simons Junior Fellow — *2022 – 2024*

EDUCATION

Massachusetts Institute of Technology
Ph.D., Mathematics. Advised by Scott Sheffield. — *2017 – 2022*

Stanford University
M.S., Statistics — *2016 – 2017*
B.S., Mathematics with Honors — *2014 – 2017*

PUBLICATIONS

FZZ formula of boundary Liouville CFT via conformal welding, with G. Remy and X. Sun. Journal of the European Mathematical Society, 2023.

Integrability of SLE via conformal welding of random surfaces, with N. Holden and X. Sun. Communications on Pure and Applied Mathematics, 2023.

The SLE loop via conformal welding of quantum disks, with N. Holden and X. Sun. Electronic Journal of Probability, 2023.

Conformal welding of quantum disks, with N. Holden and X. Sun. Electronic Journal of Probability, 2023.

Brownian loops and the central charge of a Liouville random surface, with M. Park, J. Pfeffer and S. Sheffield. Annals of Probability, 2022.

Volume of metric balls in Liouville quantum gravity, with H. Falconet and X. Sun. Electronic Journal of Probability, 2020.

Large deviations of radial SLE_∞, with M. Park and Y. Wang. Electronic Journal of Probability, 2020.

Comparison of discrete and continuum Liouville first passage percolation. Electronic Communications in Probability, 2019.

Liouville quantum gravity surfaces with boundary as matings of trees, with E. Gwynne. Annales de l'Institut Henri Poincaré, 2021.

PREPRINTS

Boundary touching probability and nested-path exponent for non-simple CLE, with X. Sun, P. Yu and Z. Zhuang. ArXiv e-prints, 2310.20583.

Conformal welding of quantum disks and multiple SLE: the non-simple case, with N. Holden, X. Sun and P. Yu. ArXiv e-prints, 2310.20583.

Cutting γ-Liouville quantum gravity by Schramm-Loewner evolution for $\kappa \notin \{\gamma^2, 16/\gamma^2\}$, with E. Gwynne. ArXiv e-prints, 2310.11455.

Reversibility of whole-plane SLE for $\kappa > 8$, with P. Yu. ArXiv e-prints, 2309.05176.

Supercritical Liouville quantum gravity and CLE$_4$, with E. Gwynne. ArXiv e-prints, 2308.11832.

Critical Liouville quantum gravity and CLE$_4$, with E. Gwynne. ArXiv e-prints, 2308.11835.

Derivation of all structure constants for boundary Liouville CFT, with G. Remy, X. Sun and T. Zhu. ArXiv e-prints, 2305.18266.

Liouville conformal field theory and the quantum zipper. ArXiv e-prints, 2301.13200.

Quantum triangles and imaginary geometry flow lines, with X. Sun and P. Yu. ArXiv e-prints, 2211.04580.

The moduli of annuli in random conformal geometry, with G. Remy and X. Sun. ArXiv e-prints, 2203.12398.

Integrability of the conformal loop ensemble, with X. Sun. ArXiv e-prints, 2107.01788.

AWARDS

Junior Fellow, Simons Society of Fellows *2022 – 2024*
Levinson Fellowship from MIT *2017*
Putnam Mathematical Competition Honorable Mention (2014–2016), Team 4th, 5th (2015, 2016)
International Mathematical Olympiad Silver (2010) and Gold, 6th (2011)

TEACHING

Course instructor
I taught an undergraduate class on linear algebra at Columbia University, Spring 2023.
Teaching Assistant
I taught recitations at MIT for 18.600 (probability). I was a teaching assistant for 18.211 (combinatorial analysis), 18.217 (graph theory and additive combinatorics), 18.675 (graduate probability) and 18.676 (stochastic calculus).
Mathematics Competitions
I coached the team representing Singapore at the 2014 International Mathematical Olympiad, and taught contest math at the AMC/AIME/USAMO level at several middle and high schools in Singapore.

EXPERIENCE (NON-ACADEMIC)

Jane Street (trading internship) *Jun.– Aug. 2016*
I explored and evaluated potential trading strategies, and traded in simulated markets.
Singapore Armed Forces *2012 – 2013*
As a Company Quartermaster Sergeant, I managed supplies at an infantry battalion's headquarters, and directed a team of fifteen supply assistants in supporting battalion exercises.

TALKS

Workshop on 2D Random Geometry, Institute for Mathematical and Statistical Innovation	07/24
Mini Course, Workshop on Probability in Conformal Field Theory, EPFL Bernoulli Center	04/24
Workshop on New Directions in Conformal Field Theory, Fields Institute	03/24
Mini Course, Thematic Program on Randomness and Geometry, Fields Institute	03/24
Probability and Mathematical Physics Seminar, Courant Institute	02/24
Workshop in Honour of Takashi Hara, Institute for Mathematical Sciences	12/23
Mathematics Colloquium, Caltech	11/23
Mathematics Colloquium, University of California San Diego	11/23
Probability Seminar, City University of New York	10/23

Probability Seminar, Massachusetts Institute of Technology	10/23
Penn/Temple Probability Seminar	3/23
Probability seminar, Institute for Advanced Study	2/23
Random Geometry and Statistical Physics Workshop	10/22
Berkeley Probability Seminar	03/22
Geneva University Mathematical Physics Seminar	12/21
Northeast Probability Seminar	11/21
Probability and the City Seminar	11/21
Probability Seminar, University of Chicago	10/21
Integrability in Conformal Probability virtual workshop	10/21
Probability Seminar, University of Cambridge	5/21
Probability Seminar, Massachusetts Institute of Technology	5/21
Probability Seminar, University of Virginia	5/21
Random Geometry and Statistical Physics Seminar	4/21