Baojun Wu

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Research Interests

Liouville conformal field theory; Schramm–Loewner evolutions; conformal loop ensembles; hyperbolic geometry; probability.

Work experiences & Visits

Beijing International Center for Mathematical Research (BICMR), Peking University
2023–present
Postdoctoral Researcher

Institut des Hautes Études Scientifiques (IHÉS) — Jan–Feb 2023
Visiting student

Institute for Advanced Study (IAS) — Sep–Dec 2022
Visiting student

Education

Université Aix-Marseille — 2020–2023
Ph.D. in Mathematics (Advisor: Prof. Rémi Rhodes)

Université Paris-Saclay — 2019–2020
M.Sc. in Random Mathematics and Probability (Mention: Très bien)

École normale supérieure (Ulm) — 2017–2020
Normalien in Mathematics (Mention: Très bien)

Shandong University — 2014–2018
B.Sc. in Mathematics and Applied Mathematics (Honors)

Publications & Preprints (selected)

- *Conformal Bootstrap on the Annulus in Liouville CFT*. arXiv:2203.11830.
- (with G. Baverez) *Higher equations of motion at level 2 in Liouville CFT*. arXiv:2312.13900.
- (with G. Baverez) *Irreducibility of Virasoro representations in Liouville CFT*. arXiv:2312.07344.
- (with C. Guillarmou, R. Rhodes) *Conformal Bootstrap for surfaces with boundary in Liouville CFT. Part 1: Segal axioms.* arXiv:2408.13133.
- (with M. Ang, G. Cai, X. Sun) *SLE Loop Measure and Liouville Quantum Gravity.* arXiv:2409.16547.
- (with M. Ang, G. Cai, X. Sun) *Integrability of Conformal Loop Ensemble: Imaginary DOZZ Formula and Beyond.* arXiv:2107.01788.

Selected Talks

- *Random Geometry and Statistical Physics*, University of Pennsylvania, Oct 2022: "Conformal loop ensemble and matrix model".
- *1st NYUSH–Peking–Westlake Joint Conference on Probability*, Mar 2024: "Irreducibility of Liouville theory".
- *Probability in Conformal Field Theory*, Bernoulli Center (EPFL), Apr 2024: "Proof of the Delfino–Viti conjecture".