

# XIANGHUI SHI

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## EDUCATION

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Ph.D. in Mathematics, 2021–present  
Peking University, Beijing, China

B.Sc. in Mathematics, 2017–2021  
Peking University, Beijing, China

## RESEARCH

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### Journal Articles

1. X. Shi (with Zhiqiang Li and Yiwei Zhang), Thermodynamic formalism for subsystems of expanding Thurston maps and large deviations asymptotics. *Proc. Lond. Math. Soc.* (3) 130, (2025), e70019. 77 pages.

### Preprints

2. X. Shi (with Zhiqiang Li), Thermodynamic formalism for subsystems of expanding Thurston maps II. Submitted, arXiv:2404.07247. 46 pages.
3. X. Shi (with Zhiqiang Li), Entropy density and large deviation principles without upper semi-continuity of entropy. Submitted, arXiv:2406.01712. 59 pages.
4. X. Shi (with Ilia Binder, Qiandu He, Zhiqiang Li), Computable thermodynamic formalism. Submitted. 39 pages.

## AWARDS

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Young Elite Scientists Sponsorship Program for PhD Students, China Association for Science and Technology, 2024

College Award, Peking University, 2023–2024

BICMR Huaixin Scholarship (Outstanding Undergraduate Researchers), Peking University, 2021

Academic Excellence Award, Peking University, 2018–2019

3<sup>rd</sup> Prize Scholarship, Peking University, 2018–2019

Merit Student, Peking University, 2017–2018

## TALKS

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*Ergodic theory of expanding Thurston maps and their subsystems.* Seminar in Dynamic Systems at ISTA, Institute of Science and Technology Austria, Vienna, Austria, December 3, 2024

*Entropy density and large deviation principles without upper semi-continuity of entropy.* The Second National Forum for Doctoral Students at the Frontiers of Mathematics, Peking University, Beijing, China, October 31–November 1, 2024

*Ergodic theory of subsystems of expanding Thurston maps.* Conference on Dynamical Systems and Fractal Geometry, University of North Texas, Denton, USA, May 14–17, 2024

## OTHER CONFERENCES ATTENDED

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Quasiworld Workshop, University of Helsinki, Helsinki, Finland, August 14–18, 2023

Advanced Studies Institute in Analysis on Fractal Spaces and Dynamical Systems, Urgench State University, Urgench, Uzbekistan, August 4-9, 2023

Conference “Around the Mandelbrot set: A conference celebrating the 60th birthday of Mitsuhiro Shishikura”, Kyoto University, Kyoto, Japan, May 29 to June 2, 2023

## TEACHING EXPERIENCE

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**Graduate Teaching Assistant**, School of Mathematics, Peking University.

- Taught discussion sessions for Mathematical Analysis (I)/(II)/(III), 2021—present