

Zhengbo Qu

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Self-motivated undergraduate with interests in dynamics and relevant areas



Summary

- I am a Mathematics major at Peking University with interests in **dynamical systems and low-dimensional topology**. I am impressed by the complexity yet orderliness of dynamical systems and the geometric intuition in low-dimensional topology. I am passionate about uncovering the connections and patterns within these fields and related areas.
- As my undergraduate research project, I have been working on the **iterated monodromy groups of expanding Thurston maps** since 2023. My advisors are **Prof. Zhiqiang Li** from Peking University and Prof. **Tianyi Zheng** from UC San Diego.
- In the university, I regularly participate in faculty and student seminars on low-dimensional topology and dynamical systems, while actively attending relevant summer schools and academic conferences.

Education



Peking University

MAJOR IN MATHEMATICS

China

2020 - Present

- Transitioned to *Mathematics* from *Physics* in 2022, driven by growing interest in mathematics;
- GPA: 3.67/4.0 | GRE sub in Math: 970/990 (97%)
- TOEFL: 103/120 | GRE: 323/340 (Quantitative Reasoning: 170/170)
- **Selected Courses:** Topics in Geometric Topology (100); Homology Theory (96); Stochastic Processes and Statistical Mechanics (99); Topics in Topology (94); Differential Manifolds and Topology (92); Functions of Real Variables (91); Complex Geometry (91), etc.

Undergraduate Research

Peking University

Beijing, China

2023 - Present

- **Title:** “On the iterated monodromy groups of expanding Thurston maps”.
- **Advisor:** Prof. Zhiqiang Li (Peking University) and Prof. Tianyi Zheng (UC San Diego).
- Collaborated with my advisors to study the iterated monodromy groups of expanding Thurston maps, aiming to prove the amenability of these groups.
- Currently in preparation; we have proven almost sure recurrence of random walks on Schreier graphs of IMGs of expanding Thurston maps, but there is still a lot of work to be done.

Honors and Awards

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| 2024 | “Hope Online” Mathematics Young Talent Support Program, Peking University |
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| 2022 | Shuqi Scholarship, Peking University |
| 2021 | Huxiong Chen Scholarship, Peking University |

Skills

- | | |
|------------------|---|
| Languages | Chinese (Native) English (Fluent) Japanese (Beginner) |
| Technical | Python LaTeX Mathematica |
| Hobbies | Reading Single-Player Gaming Vinyl Record Collecting |