

JIANRU DUAN

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| EDUCATION | Peking University <i>Ph.D. Mathematics</i> • Advisor: Prof. Yi Liu Peking University <i>B.S. Mathematics</i> | Beijing, China 2021 – 2026 (<i>expected</i>) Beijing, China 2017 – 2021 |
| RESEARCH INTERESTS | Topology of 3-manifolds L^2 -theory and geometric group theory | |
| PUBLICATIONS | <ol style="list-style-type: none">1. Guts determine the leading coefficients of L^2-Alexander torsions. <i>Trans. Amer. Math. Soc.</i> 378 (2025), 3699–3720.2. On the positivity of twisted L^2-torsion for 3-manifolds. <i>Algebr. Geom. Topol.</i> 24 (2024), 2307–2329. | |
| AWARDS AND HONORS | <ul style="list-style-type: none">• Peking University President’s Scholarship• National Scholarship for Graduate Student• Huaixin Bachelor (BICMR)• Peking University President’s Scholarship• Outstanding Student Award of Beijing• National Scholarship for Undergraduate Student | 2023–2025 2023 2021 2021 2020 2018 |
| INVITED TALKS | <ul style="list-style-type: none">• The 11th Sino-Russian Conference on Knot Theory and Related Topics at Xi’an Jiaotong-Liverpool University, Suzhou, July 2025.• Geometric Group Theory Seminar at Shanghai Center for Mathematical Sciences, Fudan University, May 2025.• Caltech Geometry & Topology Seminar, April 2025.• Rutgers Geometry & Topology Seminar, February 2025.• Topology Seminar at UC Berkeley, January 2025.• Gave a talk at South China University of Technology, Guangzhou, June 2024.• YMSC Topology Seminar at YMSC, Tsinghua University, April 2024. | |
| ACADEMIC SERVICES | Teaching assistant of Homology Theory in 2021 Spring Teaching assistant of Low Dimensional Topology 2022 Fall Teaching assistant Homology Theory in 2024 Spring Student editor of <i>Front. Math.</i> , 2023–2024 | |