# XU Yuan

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Xi'an Jiaotong University	Shaanxi, PRC
B.S. in Mathematics with Honors (GPA 3.56/4)	Sept. 2020 - Present
EXPERIENCES	
<b>Beijing International Center for Mathematics Research</b> Enhanced Program for Graduate Study	Beijing, PRC Feb. 2024 - Jun. 2024
• Related Courses: Homology Theory, Riemann Surfaces, and Characteristic Classes.	
<b>Georgia Institute of Technology</b> Visiting Honors Student Program	Georgia, USA Jan. 2023 - May. 2023
<ul> <li>Relevant Coursework: Algebriac Topology, Algebra II (GPA:4.0/4.0)</li> </ul>	Juni 2029 (May: 2029
<b>Beijing International Center for Mathematics Research</b> 2023 Summer School on Differential Geometry	Beijing, PRC Jul. 2023 - Aug. 2023
• Elliptic partial differential equations of second order (Grade: 100/100);	
• Complex geometry (Grade: 93/100);	
• Riemannian geometry (Grade: 95/100).	

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## ACTIVITIES

Peking University	Beijing, PRC
"3+X" Student Seminar on Low-dimensional Topology	Mar. 2024 - May. 2024
• Finite generation of mapping class groups;	
• The Nielsen realization problem;	
• Rigidity of mapping class groups action on S <sup>1</sup> .	
Xi'an Jiaotong University	Shaanxi, PRC
Teaching Assistant	Sept. 2023 - Feb. 2024
• Graded mathematical analysis homework for 120 mathematics majored students weekly;	
• Graded Midterm test and providing feedback for students;	
• Provided feedback in office hour;	
• Lectured exercises in class.	
Xi'an Jiaotong University	Shaanxi, PRC
Workshop on Modern Number Theory	Sept. 2021 - Jan. 2022

- Quadratic Gauss sums;
- Gauss and Jacobi sums with respect to multiplicative characters;

#### **RESEARCH EXPERIENCES**

#### Xi'an Jiaotong University

Undergraduate Project

- Advisor: ZHANG Qiang
- Topic: Nielsen-Thurston Classification Theorem on Surface Diffeomorphism

#### Xi'an Jiaotong University

Research Project

- Advisor: ZHANG Qiang
- Topic: Dehn-Niesen-Baer Theorem
- Xi'an Jiaotong University

Research Training

- Advisor: ZHANG Qiang
- Topic: Generators for Mapping Class Groups on Low Genus Surfaces

#### Xi'an Jiaotong University

Academic Training

- Advisor: MA Yue
- Topic: Introduction to manifold and Clifford algebra;

### **RESEARCH INTEREST AND LANGUAGES**

- Reseach interest: Low-dimensional topology, geometric topology, and mapping class groups.
- Languages: Chinese Mandarin (Mother tongue), English (Fluent, TOEFL iBT: 100), and Cantonese;
- Skills: LATEX, C#, and Matlab.

#### SCHOLORSHIP AND AWARDS

• International Exchange Program First-class Scholorship (Top 15%)	2022 - 2023
• Third Prize of Shaanxi Province in China Undergraduate Mathematics Contest	2022
• Mount Everest Program Second Scholarship (Top 30%)	202I - 2022
• Mount Everest Program Second Scholarship (Top 30%)	2020 - 202I

#### **OTHERS**

• Personal Website: www.mathyuan.com

Shaanxi, PRC Feb. 2024 - Jun. 2024

Shaanxi, PRC

Shaanxi, PRC

Sept. 2023 - Feb. 2024

Shaanxi, PRC

Jun. 2023 - Sept. 2023

Jun. 2022 - Sept. 2022