

Yuanzhu Huang

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Website: [Yuenzuk](#)

Education

Fudan University, Shanghai, China
Master's degree in Theoretical Physics
Master Advisor: [Yang Zhou](#)
GPA: 3.58/4.0

Sept. 2021 - June 2024 (expected)

Sun Yat-sen University, Guangzhou, China
Bachelor's degree in Physics
GPA: 3.9/4.0; Rank:10/85
Thesis Title: *On General Properties of Analogue Gravity*
Thesis Advisor: [Jia-Rui Sun](#)

Sept. 2017 - June 2021

Teaching Experience

Teaching assistant in [Thermodynamics](#)

Feb. 2023 - June 2023

- Lecturer: Yuanbo Zhang; Number of Students: 76
- Conducted bi-weekly tutorial sessions (also wrote [lecture notes](#) for tutorial sessions)
- Evaluated assignments, enhancing their understanding basic principles
- Received an "Outstanding" evaluation as a Teaching Assistant

Teaching assistant in Classical Mechanics

Sept. 2021 - Jan. 2022

- Lecturer: Zhifang Lin; Number of Students: 129
- Held paper presentations of students, talked with them and evaluated their presentations
- Evaluated assignments, enhancing their understanding basic principles
- Received an "Outstanding" evaluation as a Teaching Assistant

Research Experience

Study of Symmetry-Resolved Entanglement in CFT and Holography Sept. 2023 - Present

- Supervisor: [Yang Zhou](#)
- Extracted information from symmetry-resolved entanglement (Rényi) entropy at large charge limit
- Explored more entanglement quantities in symmetry resolution
- Tried to understand symmetry-resolved quantities using holography

Research Interests

Entropy (in various contexts)

Holographic entanglement entropy; Entropy in black hole thermodynamics; Symmetry-resolved entanglement; Entanglement with defects

Critical Phenomena and Renormalization Group Flows

Percolation; Conformal manifold; c -theorem; RG flows on defects

Other subjects where physics may get combined with mathematics amazingly...

Awards and Honors

First Prize Scholarship at Sun Yat-sen University (Top 5%) 2020

Wanglaoji Corporate Scholarship (Top 2%) 2020

Frist Prize in *The 4th South China Astronomy Contest for University Students* 2020

First Prize in the Preliminary Round of the <i>11th National College Student Mathematics Competition</i> (Non-Mathematics Major Category)	2019
Third Prize Scholarship at Sun Yat-sen University	2019
Third Prize Scholarship at Sun Yat-sen University	2018

Academic Activities

Reading Seminar	Fudan University
My talks: <i>Symmetry-Resolved Entanglement Entropy</i>	
Inter-university Journal Club	Online
My talks: <i>Shannon/von Neumann Entropy and Entanglement</i>	
Summer School	ShanghaiTech University
<i>Frontiers in Theoretical High Energy Physics</i>	
Joint Journal Club	Fudan University
Talking about different topics informally	

Skills

Languages	Mandarin Chinese (Native), Sichuanese (Native), Cantonese (Fluent), English (Fluent; IELTS: 7.0), Hakka (Beginner)
Coding	Python, Mathematica, HTML