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

Sun Yat-sen University, Guangzhou, China

Sept. 2017 - June 2021

Sept. 2021 - June 2024 (expected)

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

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 evaluted 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

Information and Entanglement Entropy

Holographic entanglement entropy; Symmetry-resolved entanglement

Critical Phenomena and Renormalization Group Flows

Percolation; Conformal manifold; c-theorem

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 202

First Prize in the Preliminary Round of the 11th National College Student Mathematics Competition (Non-Mathematics Major Category) 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: Symmetry-Resolved Entanglement Entropy

Inter-university Journal Club Online

My talks: Shannon/von Neumann Entropy and Entanglement

Summer School Shanghai Tech University

Frontiers in Theoretical High Energy Physics

Joint Journal Club Fudan University

Talking about different topics informally

Skills

Languages Mandarin Chinese (Native), Sichuanese (Native), Cantonese (Fluent), English

(Fluent; IELTS: 7.0)

Coding Python, Mathematica, HTML