

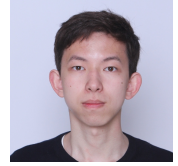
# Curriculum Vitae

## Jiaxiang Zhu




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## Education

- 09/2023 – present     **California Institute of Technology**, California, United States  
*Graduate student*
- 09/2019 – 06/2023     **Huazhong University of Science and Technology (HUST)**, Wuhan, China  
*Undergraduate student*
- 09/2016 – 06/2019     **Anhui Tunxi No.1 Senior High School**, Anhui, China.  
*Student*  
Second prize at the provincial level, Chinese Physics Olympiad

## Research Experiences


- 09/2024 – present     **Macroscopic quantum entanglement between light field and mechanical oscillators**  
*Graduate student, Caltech*  
Supervisor: Prof. Yanbei Chen
- 06/2023 – 05/2024     **Critical gravitational collapse phenomena**  
*Graduate student, Caltech*  
Supervisor: Prof. Huan Yang & Prof. Yiqiu Ma
- 06/2021 – 06/2023     **Probing phase transition in neutron star via the crust-core interfacial mode**  
*Undergraduate research student, HUST*  
Center for Gravitational Experiments, Hubei Key Laboratory of Gravitation and Quantum Physics  
Supervisor: Prof. Yiqiu Ma
- Numerical realization of neutron star seismology and the process of neutron star crust-melting
  - Investigated the imprint of dense matter phase transitions on shear-discontinuity interfacial mode and its observability in GW observations
- 04/2020 – 08/2020     **Drifting Laser Speckles, IYPT 2020 Problem 11**  
*Undergraduate research student, HUST*  
Innovation Base for Physics Experiment, Department of Physics
- Numerical simulation of the reflection of laser light on a randomly-generated diffuse surface and its granular appearance upon observation

## Awards & Honors





- 09/2022  School Merit Student, HUST, 3/174
- 06/2022  Yuyuan Scholarship, Department of Physics, 10/530
- 09/2021  School Merit Student, HUST, 3/174
- 11/2020  Chenguang Scholarship, Department of Physics, 3/174
- 09/2020  China National Scholarship, China, 3/174
-  School Merit Student, HUST, 3/174

## Publications

### Published Papers

- 1 J. Zhu, C. Wang, C. Xia, E. Zhou, and Y. Ma, "Probing phase transitions in neutron stars via the crust-core interfacial mode," *Phys. Rev. D*, vol. 107, p. 083 023, 8 Apr. 2023.  DOI: 10.1103/PhysRevD.107.083023.

## General Competence

- English Proficiency  106/120 in TOFEL, 330/340 in GRE
- GPA & Ranking  3.96/4.00, 2/174 in the grade
- Teaching Skills  Organizer of the weekly seminar activities of the 2021 academic year for freshmen on Feynman's Lectures in Innovation Base for Physics Experiment
- Presentation Experiences  Presentation on Caltech gravity group meeting

## Collaborators

-  **Huazhong University of Science and Technology** Prof. Yiqiu Ma  myqphy@hust.edu.cn
-  **Huazhong University of Science and Technology** Prof. Enping Zhou  ezhou@hust.edu.cn
-  **Yangzhou University** Prof. Chengjun Xia  cjxia@yzu.edu.cn