# XIHE LIU

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#### **EDUCATION**

SHANDONG UNIVERSITY 2021- Present

Undergraduate in the Department of Physics

Jinan, China

Coursework – Advanced Mathematics, Methods of Mathematical Physics, Theoretical Mechanics, Electrodynamics, Quantum mechanics

#### RESEARCH INTEREST

**Observation** ISM and star formation (particularly within the Central Molecular Zone) using continuum and molecular spectral lines **Simulation** The magnetic field of Star formation region

#### RESEARCH EXPERIENCE

### SHANGHAI ASTRONOMICAL OBSERVATORY, CHINESE ACADEMY OF SCIENCES

2022 - 2023

Advisor: Xing Lu

Shanghai, China

Analysis of Dense Cores and Filamentary Structures within the CMZ cloud 'e' using ALMA Band 3 and Band 6

#### SHANGHAI ASTRONOMICAL OBSERVATORY, CHINESE ACADEMY OF SCIENCES

2023 - Present

Advisor: Pakshing Li

Shanghai, China

 A New Calibration using Data from a Large-scale, High-resolution Simulation Using ORION2 on the Formation of Filamentary Dark Clouds

#### SKILLS

**Programming** Python (NumPy, Astropy, Astrodendro, Matplotlib), MATLAB, ORION2, Mathematica **Astronomy Software** CASA, CARTA, DS9, Vislt

#### Conferences and Presentations

### 2023 ANNUAL MEETING OF THE CHINESE ASTRONOMICAL SOCIETY

Sepetember 2023

Chinese Astronomical Society

Weihai, China

## 2023 PKU Undergraduate Astronomy Symposium

September 2023

Department of Astronomy, School of Physics, Peking University

Beijing, China

#### Honors and Awards

### THIRD PRIZE IN SHANDONG PROVINCE

June 2022

Chinese undergraduate Astronomical Innovation Contest

Jinan, China

LINBRIDGE SCHOLARSHIP

September 2023

2023 PKU Undergraduate Astronomy Symposium

Beijing, China

### COMMUNITY INVOLVEMENT

### **PROJECT 1** | Astro Science Popularization

2021 - 2022

Teaching astronomy popular science lesson to the students of Hongjialou Primary School

PROJECT 2 | Astronomy By the Road

2021 - Present

• Provide telescope observation and explanations for students at Shandong University

### **PROJECT 3** | Astrophysics Party

2022 - Present

· Organizing students interested in astronomy research to read paper and exchange ideas