

# XIHE LIU

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## EDUCATION

**SHANDONG UNIVERSITY** | Undergraduate in School of Physics

2021 - Present

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

## RESEARCH INTEREST

**Observation** ISM & Star formation (particularly within the Central Molecular Zone) using continuum and molecular lines

**Simulation** The magnetic field of Star formation region

## RESEARCH EXPERIENCE

**SHANGHAI ASTRONOMICAL OBSERVATORY, CHINESE ACADEMY OF SCIENCES** | Advisor: Xing Lu

2022 - 2023

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

**SHANGHAI ASTRONOMICAL OBSERVATORY, CHINESE ACADEMY OF SCIENCES** | Advisor: Pakshing Li

2023 - Present

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

## SKILLS

**Language** Python (Astropy, Astrodendro, Matplotlib, Pandas), C, MATLAB

**Software & Programming** VS Code, CASA, CARTA, DS9, VisIt, Mathematica, ORION2

**English** CET4, CET6, ITLS

## CONFERENCES AND PRESENTATIONS

**2022 ANNUAL SYMPOSIUM ON MOLECULAR CLOUDS AND STAR FORMATION**

August 2022

*Participate without Report*

Nanjing, China

**THE 7TH CHINA SKA SUMMER SCHOOL**

September 2022

**SOFIA SCHOOL 2023**

April 2023

**2023 SUBMILLIMETER ARRAY INTERFEROMETRY SCHOOL**

May 2023

**2023 ANNUAL MEETING OF THE CHINESE ASTRONOMICAL SOCIETY**

September 2023

*Participate without Report*

Weihai, China

**2023 PKU UNDERGRADUATE ASTRONOMY SYMPOSIUM**

September 2023

*Oral Presentation*

Beijing, China

**2023 ANNUAL SYMPOSIUM ON MOLECULAR CLOUDS AND STAR FORMATION**

October 2023

*Poster (DUET: The Band3 and Band6 Continuum Emission and Dense Cores in the Dust Ridge Cloud 'e')*

Chongqing, China

## HONORS AND AWARDS

**Third Prize** Chinese undergraduate Astronomical Innovation Contest

**Linbridge Scholarship** 2023 PKU Undergraduate Astronomy Symposium

**First Prize** Contemporary Undergraduate Mathematical Contest in Modeling

## COMMUNITY INVOLVEMENT

**1** | Astro Science Popularization

2021 - 2022

- Teach astronomy popular science lesson to the students of Hongjialou Primary School

**2** | Astronomy By the Road

2021 - Present

- Provide telescope observation and explanations for students at Shandong University

**3** | Astrophysics Party

2022 - Present

- Establish the first national astronomical academic community in China (similar to Astrobites) specifically designed for undergraduate students