

XIHE LIU

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EDUCATION

SHANDONG UNIVERSITY | Undergraduate in School of Physics

09/2021 - Present

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

RESEARCH INTEREST

Observation ISM & Star Formation Using Continuum and Molecular Lines (ALMA, SMA)

Simulation The Magnetic Field of Star Formation Region

RESEARCH EXPERIENCE

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

09/2022 - 09/2024

- 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: Prof. Pakshing Li

06/2023 - 01/2024

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

DEPARTMENT OF ASTRONOMY, UNIVERSIDAD DE CHILE | Advisor: Prof. Guido Garay

03/2024 - Present

- ALMA Three-millimeter Observations of Massive Star-forming Regions (ATOMS) - Hub-Filament Structures of ATOMS Sources 25, 63, 119 and 123

SKILLS

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

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

English CET4, CET6, ITLS, GRE Phys

CONFERENCES AND PRESENTATIONS

THE 7TH CHINA SKA SUMMER SCHOOL

09/2022

SOFIA SCHOOL 2023

04/2023

2023 SUBMILLIMETER ARRAY INTERFEROMETRY SCHOOL

05/2023

2023 ANNUAL MEETING OF THE CHINESE ASTRONOMICAL SOCIETY

09/2023

Participate without Report

Weihai, China

2023 PEKING UNIVERSITY UNDERGRADUATE ASTRONOMY SYMPOSIUM

09/2023

Oral Presentation (Analysis of Dense Cores and Filamentary Structures within CMZ cloud 'e' using ALMA Band 3 & 6)

Beijing, China

2023 ANNUAL SYMPOSIUM ON MOLECULAR CLOUDS AND STAR FORMATION

10/2023

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

Chongqing, China

244TH MEETING OF THE AMERICAN ASTRONOMICAL SOCIETY

06/2024

Poster (ALMA-ATOMS IRAS13484 source: Gas Inflow along HFSs and Outflows)

Madsion, WI, USA

HONORS AND AWARDS

Linbridge Scholarship 2023 Peking University Undergraduate Astronomy Symposium

First Prize Contemporary Undergraduate Mathematical Contest in Modeling

Third Prize Chinese undergraduate Astronomical Innovation Contest

COMMUNITY INVOLVEMENT

1 | Lead of Chinese Undergrad Astrophysics Community

2022 - Present

- Establish the First Chinese National Astronomical Academic Community (similar to Astrobites) Specifically Designed for Undergraduate Students

2 | Astronomy Science Popularization Volunteer, Shandong University

2021-2022

- Lead of Teaching Astronomy Popular Science Lesson to the Students of Primary School