Curriculum Vitae

Personal Information

Name:	Yu-Zhu Sun
Address:	University of Leicester, Leicester, UK, LE1 7RH
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Education

PhD in Astrophysics
Graduation Date (Expected): Jun, 2028
University of Leicester, Leicester, UK
Master of Science in Astrophysics
Graduation Date: Jun, 2024
GPA: 2.82/4.3
University of Science and Technology of China, Hefei, Anhui, China
Bachelor of Engineering in Engineering Mechanics
Graduation Date: Jun, 2021
GPA: 3.81/4.0
Sichuan University, Chengdu, Sichuan, China

Research Experience

PhD Researcher
Physics and Astronomy Department of University of Leicester, UK
Sep 2024 - Present

- Conduct research on the properties of host galaxy candidates for Fast Radio Bursts (FRBs) using low-frequency observations.
- Identify transient radio sources using LOFAR observations.

Research Assistant
Astronomy Department of University of Science and Technology of China, Hefei, Anhui, China
Sep 2021 - Sep 2024

- Led source detection and assisted in moment-making for the Atomic gas in Virgo Interacting Dwarfs (AVID) project under Dr. Hong-Xin Zhang.
- Employed SoFiA-2 to perform source detecting, adjusting the parameter to optimize source detection. Validated each detection meticulously and compiled a reliable list of sources.
- Collaborated with international teams, leading to the preparation of a series of papers for publication.

Master's Thesis: The Neutral Gas Content and the Origin of the 'Almost dark' galaxy AGC 226178
University of Science and Technology of China, Hefei, Anhui, China
March 2023 - April 2024

- Conducted multi-wavelength analysis of a nearly starless HI cloud in Virgo using FAST and VLA data
- Discovered that AGC 226178 is a free-floating HI cloud likely undergoing disintegration
- Integrated single-dish and interferometric data to study gas dynamics, morphology, and star-forming clumps

Publications

First-author Publications:

- Sun, Y.-Z. et al. (2025). Unveiling the Nature and Fate of the Almost-Dark Cloud AGC 226178 through HI Mapping. Accepted by A&A.
- Sun, Y.-Z. et al. (2025). Low-Frequency-Selected Fast Radio Burst Host Galaxies Candidates. In preparation.

Co-author Publications:

- Sun, W. et al. (2025). AVID: Formation and evolution of a coalesced major merger of late-type dwarf galaxies (VCC 479) on the outskirts of the Virgo cluster. Accepted by A&A.
- Li, F. et al. (2025). AVID: The first resolved view of a dwarf galaxy mixed merger: structural evolution of VCC 693. In preparation.
- Zhang, H.-X. (2025). AVID: First date release. In preparation.

Presentations

Oral

- Unveiling the Hidden: Exploring Neutral Gas in the 'Almost Dark' Object AGC 226178
  AUSTRALIA-CHINA CONSORTIUM FOR ASTROPHYSICAL RESEARCH 10, Guangzhou, Guangdong, China. 15 May 2024

Poster

- Low-Frequency-Selected Fast Radio Burst Host Galaxies Candidates.
  European Astronomical Society Annual Meeting 23 – 27 June 2025 University College Cork Cork, Ireland

Skills

- Advanced proficiency in CASA, HIFAST, SoFiA, 3DBarolo, etc.
- Proven ability in critical thinking, problem-solving, and project management.
- Fluent in English (IELTS:7.5).