Dr. Chen Xu

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Education

PhD	University of Chinese Academy of Sciences (UCAS) & NAOC, Astrophysics Dissertation: "Extragalactic Studies with the FAST H I Deep Surveys" Supervisor: Jie Wang (NAOC)	Sep 2021 – Oct 2026
BSc	Jilin University, Physics Dissertation: "Separating the H I gas of M31 from the Milky Way foreground" Supervisors: Jie Wang (NAOC) and Ping He (JLU)	Sep 2017 – Jun 2021

Employment

Assistant Researcher (postdoctoral) — Nov 2026 – present
Computational Cosmology Group, NAOC, Beijing

Server Administrator (concurrent) — Jan 2026 – present
Computational Cosmology Group, NAOC, Beijing

Publications

⋆ Highlighted publication. Full list can be found on ADS and ORCID.

First-author, published

1. ⋆ **Chen Xu**, Jie Wang, Yingjie Jing, et al. *The FAST Hundred-deg^2 H I Deep (HD^2) Survey: Early Results from the Pilot Survey*. ApJS, 2026, 285, 25. [Link]
2. **Chen Xu**, Jie Wang, Yingjie Jing, et al. *HiFAST: An H I data calibration and imaging pipeline for FAST III. Standing Wave Removal*. RAA, 2025, 25, 015011. [Link]

First-author, in preparation

3. **Chen Xu**, Jie Wang, Yingjie Jing, et al. *Detection of the H I disk of M31 to a radius of 63 kpc*. In preparation.

Co-authored, published

4. Yingjie Jing, Jie Wang, **Chen Xu**, et al. *HiFAST: An H I data calibration and imaging pipeline for FAST*. Sci. China Phys. Mech. Astron., 2024, 67(5), 259514. [Link]
5. Qingze Chen, Jie Wang, Yingjie Jing, **Chen Xu**, et al. *A RELHIC twin candidate near the galaxy M51*. A&A, 2026, 712, L12. [Link]
6. Tiantian Liang, Jie Wang, Tao Wang, Yingjie Jing, **Chen Xu**, et al. *Identification of Galactic H I Counterpart of the Large [O III] Emission Structure 1.2° Southeast of M31*. AJ, 2025, 170(5), 253. [Link]
7. Ziming Liu, Jie Wang, Yingjie Jing, **Chen Xu**, et al. *Observation of H I around three satellite galaxies of M31 with FAST: Andromeda II, NGC 205, and NGC 185*. RAA, 2024. [Link]
8. Chuan-Peng Zhang, Ming Zhu, Peng Jiang, et al. *The FAST all sky H I survey (FASHI): The first release of catalog*. Sci. China Phys. Mech. Astron., 2024, 67, 219511. [Link]

Conferences and Workshops

PHISCC Workshop, PKU/KIAA: *The FAST Hundred-deg^2 H I Deep (HD^2) Survey: Early Results from the Pilot Survey*	Oct 2026
Student-organized H I Unofficial Discussion Club (organizer): *A Large Diffuse H I Disk of $N_{\rm H\,I} = 10^{17-18}$ cm^{-2} Rotating around M31 and Photoionization Analysis*	Jan 2026
2nd FAST Scientific Meeting, Pingtang: *The FAST Hundred-deg^2 H I Deep (HD^2) Survey I. Early Results from the Pilot Survey*	Sep 2025
Guo Shoujing Galaxy and Cosmology Meeting, Changsha: *Pilot Survey of the FAST HD^2 Survey I. Early Results from the Extragalactic H I Catalog*	May 2025
Annual Meeting of the FAST Project, PKU/KIAA: *A Pilot Survey for the HD^2 Survey: Optical Counterparts and Scaling Relations with DESI*	Nov 2024
Invited talk, USTC Journal Club (online): *Low-z H I Extragalactic Surveys of FAST: Observations, Data Reduction and Some Early Results*	Oct 2023
HiFAST Technical Workshop, Beijing: *Introduction of Ripples Removal and RFI Flagging in HiFAST*	Nov 2021

Observing Experience & Skills

FAST	Hundreds of hours of observation planning and H I data reduction as a key member of FAST key projects (ZD2021_4 – ZD2026_4).
Optical	Lijiang 2.4 m (CHILI IFU, 1 night); Xinglong 2.16 m (2 nights).
Interferometry	Data reduction with VLA and GMRT (Co-I, 35 hours).
Data processing	Proficient in processing raw FAST data from multiple observing modes, including H I point-source catalog generation.
Simulation	Basic skills; mock H I galaxies from IllustrisTNG.
Languages	Mandarin (native), English; Python, Shell; basic German and Spanish.

Honors & Awards

Zhihu New Knowledge Youth of 2024	2025
2nd Astronomy Popular Science Collection Activity, First Prize	2024
UCAS Science Fiction and Popular Science Essay Contest, First Prize (popular science) and Third Prize (science fiction)	2024
UCAS Science Fiction and Popular Science Essay Contest, Excellence Prize	2023
1st UCAS Women's Football Tournament, Champion	2022
UCAS Three-Good Student	2022
UCAS Graduate Scholarship	2021
First-Class Scholarship, Jilin University	2018 – 2021

Service & Outreach

Organizer, student-run H I Unofficial Discussion Club (students and postdocs)	2024 – present

Outstanding Astronomy Contributor on social media Zhihu (@astroR2)	2024 – present
Key member, Outreach Department, Graduate Student Union, NAOC	2025 – present
Key member, Outreach Department, UCAS Astronomical Association	2021 – 2023
Head of the Academic Department, Jilin University Astronomy Society	2018 – 2019