

# Qingzheng Yu

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## EDUCATION

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### Ph.D. in Astrophysics

Sep. 2017 - Jun. 2023

*Department of Astronomy, Xiamen University, Fujian, China*

– Thesis: *On the Cold Gas Evolution of Interacting Galaxies*

– Advisor: Professor Taotao Fang

### Bachelor of Science in Physics

Sep. 2012 - Jun. 2016

*Department of Physics, Guangzhou University, Guangdong, China*

## PROFESSIONAL APPOINTMENTS

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### Postdoctoral Research Fellow

Sep. 2024 - present

*Department of Physics and Astronomy, University of Florence, Italy*

### Postdoctoral Research Assistant

Jul. 2023 - Sep. 2024

*Department of Astronomy, Xiamen University, Fujian, China*

### Research Assistant

Sep. 2017 - Jun. 2023

*Department of Astronomy, Xiamen University, Fujian, China*

## RESEARCH INTERESTS

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Galaxy Formation and Evolution • Circumgalactic Medium • Interstellar Medium,  
Gas Recycling and Star Formation of Galaxies • Galaxy Interactions and Mergers,  
Feeding and Feedback of AGN • HI Absorption Survey toward Radio AGNs

## ACCEPTED PROPOSALS

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### PI, ~150 h, Five-hundred-meter Aperture Spherical radio Telescope (FAST)

2020-2023

Projects: PT2020\_0152, PT2021\_0067, PT2022\_0090, PT2023\_0004, PT2023\_0021

[Yu et al., 2023, ApJ, 952, 144](#)

[Yu et al., 2022, ApJ, 934, 114](#)

### PI, 19.7 h, Karl G. Jansky Very Large Array (JVLA)

2023A

Projects: 23A-236

### PI, 57 h, Institut de Radioastronomie Milimetrique (IRAM) 30 m

2021-2022A

Projects: E01-21, 029-22

### PI, 21 h, James Clerk Maxwell Telescope (JCMT)

2021B

Projects: M21BP051

### PI, 4 nights, P200/Hale Telescope: CWI, WaSP

TAP 2021A-2024A

Projects: CTAP2021-A0034, CTAP2021-B0019, CTAP2024-A0020

<b>PI, 11 h, Green Bank Telescope (GBT)</b> Projects: GBT-21A-245	2021A
<b>Co-I, 41.4 h, Karl G. Jansky Very Large Array (JVLA)</b> Projects: 24A-407	2024A
<b>Co-I, ~100 h, Five-hundred-meter Aperture Spherical radio Telescope (FAST)</b> 2019a-005-S, PT2021_0147, PT2021_0186, PT2021_0120, PT2021_0139, PT2021_0040, PT2022_0181	2019-2022

## OBSERVING EXPERIENCE

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### Radio single-dish spectroscopy and mapping:

[FAST](#), H I spectral line observations of nearby galaxies, pool, 94 h  
[FAST](#), H I mapping of nearby galaxy groups, pool, 34 h  
[FAST](#), H I mapping of high-velocity clouds, pool, 64 h  
[GBT](#), H I spectral line observations of nearby galaxies, pool, 11h  
[IRAM 30m](#), CO spectral line observations of nearby galaxies, remote, 149 h  
[JCMT](#), CO spectral line observations of nearby galaxies, pool, 21 h  
[Parkes](#), H I spectral line observations of nearby galaxies, remote, 22 h

### Radio interferometer:

[JVLA](#), H I spectral line and continuum imaging of nearby galaxies, pool, 19.7 h

### Optical imaging and spectroscopy:

[P200/Hale](#), narrow-band imaging of nearby galaxies with WaSP, remote, 2 nights  
[P200/Hale](#), spectroscopic observations of nearby galaxies with DBSP, remote, 1 night

## SELECTED CONFERENCE CONTRIBUTION

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H I Absorption in Low-power Radio AGNs Detected by FAST -Contributed talk on “Galaxy Formation in Hangzhou: Observations and Physics of AGN Feedback”, Hangzhou, China	10/2023
H I Observations of Low-power Radio AGNs and the Magellanic Stream with FAST -Contributed talk on “The First FAST Science Symposium”, FAST site, Guizhou, China	09/2023
H I Absorption in Low-power Radio AGNs Detected by FAST -Contributed talk on “Symposium on Multiwavelength Studies of Quasars and AGNs”, Lijiang, China	07/2023
Investigating Galaxy Interactions and AGN through H I Observations -Contributed talk on “Sixth Annual SKA Science Symposium”, Shanghai, China	06/2023
On the H I Content of MaNGA Major Merger Pairs, <a href="#">2023, IAU Symposium, 373, 186</a> -Contributed remote talk on “IAUGA 2022 Symposium 373”, Busan, Korea	08/2022
On the H I Content of MaNGA Major Merger Pairs -Contributed talk on “Jing-Guang-Xia Astrophysics Symposium”, Xiamen, China	12/2021
H I observations of MaNGA merging galaxies and HVCs with FAST -Contributed talk on “CRAFTS and FAST data analysis workshop”, Nanjing, China	04/2021

## TEACHING AND MENTORING

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### Teaching at Xiamen University

Observational Astronomy (Graduate course), <a href="#">Lecturer (1 week)</a> , ~30 students	2023 Spring
• Introduced the H I and extragalactic observations in radio band	
Observational Astrophysics (undergraduate course), Teaching Assistant, ~50 students	2018 Spring
• Built course websites for problem sets, solutions, and FAQ's for sessions	

### Undergraduate Student Research Project Mentoring

Shuo Zhang (XMU '24): Observations of Complex A with FAST, co-mentor	2022 - present
Zeqian Xu (XMU '25): H I Observations with FAST, co-mentor	2022 - present
Ziying Ma (XMU '25): HVC Observations with FAST, co-mentor	2022 - present
Yuxin Xiao (XMU '25): HVC Observations with FAST, co-mentor	2022 - present

## COMMUNITY SERVICE

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Committee Member, FAST User Committee, ~20 out of ~500 users	2021 - present
Organizer, student discussion with colloquium speaker, Xiamen University	2021 - present
Organizer, group meeting for the Galaxy and Cosmology Group, Xiamen University	2020 - present

## SKILLS

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<b>Languages:</b>	Chinese (Mother Language), English (Professional), Italian (Beginner)
<b>Programming:</b>	Python, IDL, Bourne Shell, Matlab
<b>Software &amp; Tools:</b>	GILDAS, HIFAST, Starlink, MIRIAD, IRAF, CWITools, GBTIDL, CASA

## AWARDS/FELLOWSHIPS

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<b>2024-2027:</b>	European Research Council (ERC) postdoctoral fellowship @ University of Florence
<b>2024-2027:</b>	Kavli Institute of Astronomy and Astrophysics (KIAA) fellow (declined)
<b>2013:</b>	Undergraduate scholarship from NAOC

## REFERENCES

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- Taotao Fang  
Email: [fangt@xmu.edu.cn](mailto:fangt@xmu.edu.cn)  
Professor of Astronomy & Astrophysics, Department of Astronomy, Xiamen University
- Cong Kevin Xu  
Email: [coxu@ipac.caltech.edu](mailto:coxu@ipac.caltech.edu)  
Professor of Astronomy & Astrophysics,  
Chinese Academy of Sciences South America Center for Astronomy,  
National Astronomical Observatories, Chinese Academy of Sciences
- Junfeng Wang  
Email: [jfwang@xmu.edu.cn](mailto:jfwang@xmu.edu.cn)  
Professor of Astronomy & Astrophysics, Department of Astronomy, Xiamen University

## PUBLICATIONS

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- As the first author:

**Yu Q.**, Fang T., Wang J., Wu J., *HI Absorption in Low-power Radio AGNs Detected by FAST*, 2023, [ApJ](#), 952, 144

**Yu Q.**, Fang T., Feng S., Zhang B., Xu C. K., Wang Y., Hao L., *On the HI Content of MaNGA Major Merger Pairs*, 2022, [ApJ](#), 934, 114

**Yu Q.** et al., *CO Observations of MaNGA Galaxy Pairs*, submitted to [ApJS](#).

**Yu Q.** et al., *Unveiling the Interaction between the Magellanic Stream and the Milky Way's Circumgalactic Medium*, in preparation.

- As a co-author:

Yi T., +17+ **Yu Q.** +10, *A Dynamically discovered and characterized non-accreting neutron star-M dwarf binary candidate*, 2022, [Nature Astronomy](#), 6, 1203

Zhang B., Zhu M., Wu Z.-Z., **Yu Q.-Z.**, et al., *Extragalactic HI 21-cm absorption line observations with the Five-hundred-meter Aperture Spherical radio Telescope*, 2021, [MNRAS](#), 503, 5385

Zhang Z., Zhang X., Li H., Fang T., **Yu Q.**, et al., *Low- and High-velocity O VI in Milky Way-like Galaxies: the Role of Stellar Feedback*, 2024, [ApJ](#), 962, 15