

Qingzheng Yu

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EDUCATION

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

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

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

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

PI, 11 h, Green Bank Telescope (GBT) 2021A
 Projects: GBT-21A-245

Co-I, 41.4 h, Karl G. Jansky Very Large Array (JVLA) 2024A
 Projects: 24A-407

Co-I, ~100 h, Five-hundred-meter Aperture Spherical radio Telescope (FAST) 2019-2022
 2019a-005-S, PT2021_0147, PT2021_0186, PT2021_0120, PT2021_0139, PT2021_0040, PT2022_0181

OBSERVING EXPERIENCE

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

H I Absorption in Low-power Radio AGNs Detected by FAST 10/2023
 -Contributed talk on “Galaxy Formation in Hangzhou: Observations and Physics of AGN Feedback”, Hangzhou, China

H I Observations of Low-power Radio AGNs and the Magellanic Stream with FAST 09/2023
 -Contributed talk on “The First FAST Science Symposium”, FAST site, Guizhou, China

H I Absorption in Low-power Radio AGNs Detected by FAST 07/2023
 -Contributed talk on “Symposium on Multiwavelength Studies of Quasars and AGNs”, Lijiang, China

Investigating Galaxy Interactions and AGN through H I Observations 06/2023
 -Contributed talk on “Sixth Annual SKA Science Symposium”, Shanghai, China

On the H I Content of MaNGA Major Merger Pairs, [2023, IAU Symposium, 373, 186](#) 08/2022
 -Contributed remote talk on “IAUGA 2022 Symposium 373”, Busan, Korea

On the H I Content of MaNGA Major Merger Pairs 12/2021
 -Contributed talk on “Jing-Guang-Xia Astrophysics Symposium”, Xiamen, China

H I observations of MaNGA merging galaxies and HVCs with FAST 04/2021
 -Contributed talk on “CRAFTS and FAST data analysis workshop”, Nanjing, China

TEACHING AND MENTORING

Teaching at Xiamen University

Observational Astronomy (Graduate course), Lecturer (1 week) , ~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

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

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

AWARDS/FELLOWSHIPS

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

REFERENCES

- Taotao Fang
Email: fangt@xmu.edu.cn
Professor of Astronomy & Astrophysics, Department of Astronomy, Xiamen University
- Cong Kevin Xu
Email: 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
Professor of Astronomy & Astrophysics, Department of Astronomy, Xiamen University

PUBLICATIONS

- As the first author:

4. **Yu Q.**, Xu C.~K., Feng S., Feng S., Gao Y., Jiang X.-J., et al., *CO Observations of Early-mid Stage Major-mergers in MaNGA Survey*, 2024, *ApJS*, 273, 2
3. **Yu Q.**, Fang T., Wang J., Wu J., *HI Absorption in Low-power Radio AGNs Detected by FAST*, 2023, *ApJ*, 952, 144
2. **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
1. **Yu Q.** et al., *Unveiling the Interaction between the Magellanic Stream and the Milky Way's Circumgalactic Medium*, in preparation.

- As a co-author:

4. He, C., Xu, C., Lisenfeld, U., Dai, Y.~S., Fang T., Huang J., Wang W., **Yu Q.**, 2024, *RAA*, 24, 055005
3. 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
2. Yi T., +17+ **Yu Q.** +10, *A Dynamically discovered and characterized non-accreting neutron star-M dwarf binary candidate*, 2022, *Nature Astronomy*, 6, 1203
1. 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

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July 17, 2024