

# Qingzheng Yu

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## EDUCATION

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### Ph.D. in Astrophysics

Sep. 2017 - present

*Department of Astronomy, Xiamen University, Fujian, China*  
- Advisor: Prof. Taotao Fang

### Bachelor of Science in Physics

Sep. 2012 - Jun. 2016

*Department of Physics, Guangzhou University, Guangdong, 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, H I Absorption Survey toward Radio AGNs

## ACCEPTED PROPOSALS

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| <b>PI, 19.7 h, JVL</b>   | 2023A     |
| 23A-236, Unveiling the Origin of H I Absorbers toward Faint Radio AGNs Discovered by FAST        |           |
| <b>PI, 40 (A rated) + 16.6 (B rated) h, FAST</b>   | 2022      |
| PT2022_0090, A Survey of H I Absorption in Faint Radio AGNs at $z < 0.1$                         |           |
| <b>PI, 39 h, IRAM 30 m</b>   | 2022A     |
| 029-22, Unveiling the cold Gas Evolution of MaNGA Merging Galaxies                               |           |
| <b>PI, 12.6 h, FAST</b>  | 2021      |
| PT2021_0067, A Pilot Survey of H I Absorption in faint radio AGNs                                |           |
| <b>PI, 17.8 h, IRAM 30 m</b>   | 2021DDT   |
| E01-21, Unveiling the cold Gas Evolution of MaNGA Merging Galaxies                               |           |
| <b>PI, 21 h, JCMT</b>  | 2021B     |
| M21BP051, Probing the Cold Gas Evolution of MaNGA Merging Galaxies                               |           |
| <b>PI, 1 night, P200/Hale</b>  | TAP 2021B |
| CTAP2021-B0019, Probing the Circumgalactic Medium of Galaxy Mergers with Deep H $\alpha$ Imaging |           |
| <b>PI, 11 h, GBT</b>   | 2021A     |
| GBT-21A-245, Probing the H I content of Merging Galaxies in MaNGA                                |           |
| <b>PI, 1 night, P200/Hale</b>  | TAP 2021A |
| CTAP2021-A0034, Probing the Circumgalactic Medium of Galaxy Mergers with Deep H $\alpha$ Imaging |           |
| <b>PI, 4 h, FAST</b>   | 2020      |
| PT2020_0152, Probing the H I content of Merging Galaxies in MaNGA                                |           |

**Co-I, 26 h, FAST** 2021  
PT2021\_0040, Unveiling the Interaction between the Magellanic Stream and the Milky Way's Circumgalactic Medium

**Co-I, 30 h, FAST** 2021  
PT2021\_0139, Search for Extragalactic H I Absorption Systems in the Redshift Range of 0.25-0.35

**Co-I, 2 h, FAST** 2021  
PT2021\_0120, Two Quiescent Close Binary Systems that Contain a Candidate Neutron Star

**Co-I, 11 h, FAST** 2020  
PT2021\_0186, Probing the H I Gas Contents of Transitional Galaxies Indicated by the [N II]/[S II] ratios

**Co-I, 3 h, FAST** 2020  
PT2021\_0147, Direct Observation of the H I Disk of Massive Spiral Galaxy: A Pilot Study of NGC 891

**Co-I, 7 h, FAST** Shared risk 2019  
2019a-005-S, Connecting the Circumgalactic Medium and the H I content of the redshift  $\sim 0.2$  galaxies: A pilot study

## OBSERVING EXPERIENCE

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### Radio single-dish spectroscopy and mapping:

[FAST](#), H I spectral line observations of nearby galaxies, pool, 38 h  
[FAST](#), H I mapping of high-velocity clouds, pool, 26 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

### 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

## CONFERENCE CONTRIBUTION

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On the H I Content of MaNGA Major Merger Pairs 08/2022  
-Contributed talk on "IAUGA 2022 Symposium 373"

## COMMUNITY SERVICE

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Member of the FAST User Committee

## SKILLS

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**Languages:** Chinese, English  
**Programming:** Python, IDL, Matlab  
**Software & Tools:** GBTIDL, Starlink, MIRIAD, IRAF, GILDAS

## PUBLICATIONS

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- As the first author:

**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., *HI Absorption in Low-power Radio AGNs Detected by FAST*, submitted to ApJL.

**Yu Q.** et al., *CO Observations of MaNGA Galaxy Pairs*, in preparation.

- As the 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