

Yuqian Gui

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EDUCATION

Department of Astronomy, Tsinghua University
Ph.D. student, Supervisor: Dandan Xu

Beijing, China
2024 - Current

Zhili College, Tsinghua University
B.S. in Physics, GPA: 3.85/4.00

Beijing, China
2020 - 2024

Thesis: *Observational properties of episodic star-forming galaxies*, Supervisor: Dandan Xu

RESEARCH EXPERIENCE

Gas Kinematics in M31 CGM
Mentored by Zhijie Qu

Department of Astronomy, Tsinghua University
Jun. 2025 - Current

- Investigate the cold gas kinematics using QSO spectroscopy and HI emission.

Galaxies Evolution in IllustrisTNG
Mentored by Dandan Xu

Department of Astronomy, Tsinghua University
May. 2023 - Current

- Investigate the episodic star formation histories of star-forming galaxies by using IllustrisTNG-100. The paper has been submitted.

KMTNet AnomalyFinder Microlensing Planets
Mentored by Shude Mao

Department of Astronomy, Tsinghua University
Jun. 2022 - Aug. 2024

- Joined “Mass-Production for KMTNet AnomalyFinder Planets” project which analyzes 2016 - 2019 microlensing events, and published a paper about 2017 low-cadence events.

HONORS AND AWARDS

- Tsinghua Comprehensive Outstanding Scholarship (Second Class), Tsinghua University 2025
- Graduate with distinction, Beijing Municipal Education Commission 2024
- Tsinghua Comprehensive Outstanding Scholarship, Tsinghua University 2023
- Tsinghua-ICBC Comprehensive Outstanding Scholarship, Tsinghua University 2022
- Excellent Volunteer Scholarship, Zhili College, Tsinghua University 2022
- Tsinghua Comprehensive Outstanding Scholarship, Tsinghua University 2021

PUBLICATIONS

- [1] Y. Gui et al. “Episodic Star Formation – I. Overview and Scatter of the Star-Forming Main Sequence”. In: *arXiv e-prints*, arXiv:2512.00151 (Nov. 2025), arXiv:2512.00151. DOI: [10.48550/arXiv.2512.00151](https://doi.org/10.48550/arXiv.2512.00151). arXiv: [2512.00151](https://arxiv.org/abs/2512.00151) [astro-ph.GA].
- [2] Y. Gui et al. “Systematic KMTNet Planetary Anomaly Search. XII. Complete Sample of 2017 Subprime Field Planets”. In: 168.2, 49 (Aug. 2024), p. 49. DOI: [10.3847/1538-3881/ad4ce5](https://doi.org/10.3847/1538-3881/ad4ce5).

REPORTS AND TALKS

- Episodic star formation and its imprint on satter of SFMS**
PKU+THU Joint Postdoc Forum 2025@Peking University
Lightning Talk
Dec. 2, 2025
- Episodic evolutionary history of present-day star-forming galaxies**
12th Sino-German Meeting@Sichuan, China
Lightning Talk
Sept. 23, 2025

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| 3. Episodic evolutionary history of present-day star-forming galaxies
"Ten Billion Years of Galactic Ecosystem Evolution" Meeting@Tsinghua University | Lightning Talk
<i>Jun. 18, 2025</i> |
| 4. Episodic evolutionary history of present-day star-forming galaxies
27th Guoshoujing Meeting@Hunan, China | Contributed Talk
<i>May. 26, 2025</i> |

TEACHING EXPERIENCE

Observational Cosmology: from the Solar System to the Distant Universe <i>Teaching Assistant</i>	Tsinghua University <i>Sept. 2025 - Jan. 2026</i>
Probability Theory <i>Teaching Assistant</i>	Tsinghua University <i>Feb. 2025 - Jun. 2025</i>
Linear Algebra <i>Teaching Assistant</i>	Tsinghua University <i>Sept. 2024 - Jan. 2025</i>

SKILLS

- **Programming Language** - Python, C, MATLAB
- **Tools** - NumPy, Pandas, Scipy, Matplotlib, \LaTeX
- **Language** - Native Chinese speaker, fluent English, entry-level Spanish