

Zeyu Gao

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Research Interests

- *Exploring the beauty of galaxies across different scales through observations and simulations.*
- **Galaxy Evolution:** quenching, metal enrichment, scaling relations.
- **Stellar Population:** star formation history, SED fitting.
- **Galaxy-Halo Connection:** how halo influence the galaxy properties.

Education

Peking University <i>Graduate student in Astrophysics</i>	Sep. 2022 – Now
◦ Advisor: Yingjie Peng	
Nanjing University <i>B.S. in Astronomy</i>	Sep. 2018 – July 2022
◦ Advisor: Yanmei Chen	
◦ Thesis: <i>Two Quenching Mechanisms in the Local Universe</i>	

Publications

1. From Halos to Galaxies. X: Decoding Galaxy SEDs with Physical Priors and Accurate Star Formation History Reconstruction 🔗 <i>Zeyu Gao</i> , Yingjie Peng, Kai Wang et al. [arXiv: 2408.07749] 🔗	ApJ 979, 66 (2025)
2. Formation and Environmental Context of Giant Bulgeless Disk Galaxies in the Early Universe: Insights from Cosmological Simulations 🔗 Fangzhou Jiang, Liang, Jinning, Jin, Bingcheng, Zeyu Gao et al. [arXiv: 2504.01070] 🔗	Arxiv (2025)
2. The Critical Role of Dark Matter Halos in Driving Star Formation 🔗 Jing Dou, Yingjie Peng et al. (including Zeyu Gao) [arXiv: 2503.04243] 🔗	ApJ 892, 12 (2025)
3. From Halos to Galaxies. VI. Improved halo mass estimation for SDSS groups and measurement of the halo mass function 🔗 Dingyi Zhao, Yingjie Peng et al. (including Zeyu Gao) [arXiv: 2408.12442] 🔗	ApJ 979, 42 (2025)
4. Abundant Molecular Gas in the Central Region of Lenticular Galaxy PGC 39535 🔗 Jiantong Cui, Qiusheng Gu, Shiyang Lu, Zhengyi Chen, Can Xu, Zeyu Gao	ApJ 975, 124 (2024)

Honors and Awards

Outstanding Graduate of Nanjing University	2022
Outstanding Student	2020
NAOC Scholarship	2020
The People's Scholarship in China (1st class)	2020
National Scholarship	2019
Outstanding Student	2019

Teaching and Service

Teaching Assistant & Guest Lecturer for Galactic Physics (Prof. Fangzhou Jiang)	2023 Fall
Co-advised Manjia Chen (undergraduate student, Peking University)	2024
Part-time Counsellor for Undergraduates	2024 - Now
Co-organizer of the weekly Galaxy Party at KIAA	2023 - Now
Faculty Candidate Interview Committee at KIAA, Graduate Student Representative	2024, 2025
Volunteer of the 2023 CSST Summer School	2023 Summer

Talks

Lunch talk at South-Western Institute For Astronomy Research, Yunnan University (Invited) <i>Decoding Galaxy SEDs with Physical Priors and Accurate Star Formation History Reconstruction</i> ↗	Kunming, Aug. 2024
26th Chinese Astronomical Society Guoshoujing Symposium on Galaxies and Cosmology <i>Measuring Galaxy Properties from SED Fitting with a Physical Prior</i>	Suzhou, May 2024
CSST Symposium on Galaxies Evolution and Cosmology <i>Measuring Galaxy Properties from SED Fitting with a Physical Prior</i>	Suzhou, Nov. 2023
Annual Meeting of Jiangsu Astronomical Society <i>Two quenching mechanisms in the local universe</i>	Nanjing, July 2022

References

Prof. Yingjie Peng ✉ yjpeng@pku.edu.cn kiaa.pku.edu.cn/info/1010/1016.htm	KIAA, Peking University
Prof. Yanmei Chen ✉ chenym@nju.edu.cn astronomy.nju.edu.cn/szll/szgj/js/20190816/i13833.html	Nanjing University
Prof. Fangzhou Jiang ✉ fangzhou.jiang@pku.edu.cn www.fzjiang.com	KIAA, Peking University