ZHEYU LIN (林哲宇)

(+86) 134 134 13921 linzheyu@mail.ustc.edu.cn No. 96 Jinzhai Rd., Hefei, Anhui University of Science and Technology of China ResearchGate

ORCID: 0000-0003-4959-1625

Publication List

EDUCATION & WORK EXPERIENCE

• Postdoc at Laboratoire AstroParticule et Cosmologie (APC), Paris, France

2025-2027

• Ph.D in Astronomy, University of Science and Technology of China, Hefei, China Thesis: Investigating Tidal Disruption Events Based on Wide Field Sky Surveys Supervisors: Prof. Xu Kong & Dr. Ning Jiang 2020-2025

• B.S in Astronomy, University of Science and Technology of China, Hefei, China

2016-2020

Thesis: Probing Tidal Disruption Events: Why, How?

Supervisor: Prof. Xu Kong

LANGUAGES

Chinese - Mandarin (native), Teochew (native), Cantonese (fluent); English (fluent); French (learning)

Research Interests

My research interests tightly connect with transients around the supermassive black holes (NTs), especially tidal disruption events (TDEs) and turn-on active galaxies (AGNs).

- Enlarge the sample of NTs by time-domain surveys, and summarize their collective features.
- Unveil the nature of TDEs and turn-on AGNs by multiwavelength emission and spectroscopy.
- Find the clues to how central activities affect the whole galaxy formation.
- Explore the unknown parameter space, trying to find new kinds or features of transients.

PROJECTS

• Long-term monitoring of nuclear transients

2022-Present

- Experience in Swift / XMM-Newton / Einstein Probe (EP) / NICER / spectroscopy applications (>600 ks/>150 ks/>100 ks/30 ks/>20 nights awarded) and data analysis.
- Expertise in collecting multiwavelength historical data and discovering meaningful features.
- Two papers published in the ApJ Letters.
- Searching TDEs by Wide Field Survey Telescope (WFST)

2020-2025

- One mock observation paper published in the MNRAS.
- Building WFST differential photometry database and TDE filters.

SCHOLARSHIPS

- CAS President Award Excellence Prize, 2025.
- National Scholarship for Ph.D. Students, 2024.
- CASC Scholarship, First Prize, 2023.
- WFST Scholarship, 2022, 2023, 2024.

Positions of Responsibility

- Reviewer for The Astrophysical Journal (ApJ) and Research in Astronomy and Astrophysics (RAA)
- Volunteer for USTC Astronomy Summer Camp

Summer 2022

• Teaching Assistant for ASTR6003P

Fall 2021

• Minister of Academy for USTC English Club (EC)

Fall 2017 - Summer 2018

- The designer and organizer of "USTC Mystery Hunt" an outdoor mystery solving game. Following the great success, it has been held as a (bi-)annual activity for seven times and imitated by other clubs
- The creator of the award-winning official account of EC
- Assistant of Study Affairs for Class 2, Grade 2016, School of Physics

Fall 2016 - Summer 2017

Press (in English)

• This unlucky star got mangled by a black hole – twice, Nature Research Highlights

August 2024

• 'Unluckiest star' may be trapped in deadly dance with a black hole, New Scientist

May 2024

SELECTED TALKS

- X-ray Quasi-Periodic Eruptions and Repeating Nuclear Transients workshop, ESAC, Madrid June 2025
- Transient Phenomena and Physical Processes around SMBHs, Tsung-Dao Lee Institute October 2024
- TDEs and NTs: Entering the Data-Rich Era, Heraklion, Crete, Greece

September 2024

• Einstein Probe/WFST time-domain science seminar, Lenghu, Qinghai

August 2023

Selected Awards

- Outstanding PhD graduate of USTC & Anhui Province, 2025.
- One of the top ten progresses of the year, School of Physics, USTC, 2024.
- Second place in the 1st popular science article competition, held by the National Astronomical Observatories of the Chinese Academy of Sciences (NAOC), 2024. Awarded article: *Hunting the beasts in the center of galaxies: A story of supermassive black holes*.
- "Gold dolphin" award of 50m breaststroke swimming (finish in 50 seconds), 2023.
- "Outstanding official account" award for the USTC English Club, as the creator and administrator, 2018.

Publications by October 5 2025

Full List on NASA/ADS

4 Papers as the First or Corresponding Author:

- 4. Lin Zheyu, Jiang Ning, Wang Yibo, Kong Xu, et al., Insights from the "Red devil" AT 2022fpx: A dust-reddened TDE family excluded by their apparent red color?, 2025, ApJ, 990, 22.
- 3. Lin Zheyu, Jiang Ning, Wang Tinggui, Kong Xu, et al., The unluckiest star: A spectroscopically confirmed repeated partial tidal disruption event AT 2022dbl, 2024, ApJL, 971, L26. (Cited 26, selected as Nature research highlight)
- 2. Lin Zheyu, Jiang Ning, Kong Xu, et al., The Luminosity Function of Tidal Disruption Flares for the ZTF-I Survey, 2022, ApJL, 939, L33. (Cited 29)
- 1. Lin Zheyu, Jiang Ning & Kong Xu, The prospects of finding tidal disruption events with 2.5-m Wide-Field Survey Telescope based on mock observations, 2022, MNRAS, 513, 2422. (Cited 31)

15 Papers as the co-author:

- 15. Huang Shifeng, Wang Tinggui, Jiang Ning, et al., Unveiling the Cosmic Dance of Repeated Nuclear Transient ASASSN-14ko: Insights from Multiwavelength Observations, 2025, ApJ accepted.
- 14. Ding Weiyu, Kong Weiwen, Sui Jipeng, et al., Exploring the Link between Extreme Coronal Line Emitters and Tidal Disruption Events, 2025, ApJ, 988, 187.
- 13. Luo Yibin, Fan Lulu, Sun Weibin, et al., The $M_{\rm BH}-M_{\star}$ Relation of the Hyperluminous Dust-obscured Quasars up to $z\sim 4$, 2025, ApJ, 986, 195.
- 12. Lin Jie, Wang Tinggui, Cai Minxuan, et al., Minute-cadence observations on Galactic plane with Wide Field Survey Telescope (WFST): Overview, methodology and early results, 2025, ApJS, 278, 29.
- 11. Yao Yao, Wang Enci, He Zhicheng, **Lin Zheyu**, et al., Bipolar blobs as evidence of hidden AGN activities in the low-mass galaxies, 2024, ApJL, 972, L16.
- 10. Luo Yibin, Fan Lulu, Liang Yongming, et al., Ly α imaging around the hyperluminous dust-obscured quasar W2246-0526 at z = 4.6, 2024, ApJ, 972, 51.
- 9. Wang Yibo, Wang Tinggui, Jiang Ning, et al., ASASSN-18ap: A Dusty Tidal Disruption Event Candidate with an Early Bump in the Light Curve, 2024, ApJ, 966, 136.
- 8. Huang Shifeng, Jiang Ning, Zhu Jiazheng et al., AT 2023lli: A Tidal Disruption Event with Prominent Optical Early Bump and Delayed Episodic X-Ray Emission, 2024, ApJL, 964, L22.
- 7. Chen Lijun, Zhang Hong-Xin, Lin Zesen, et al., Dwarf Galaxies with the Highest Concentration Are Not Thicker than Ordinary Dwarf Galaxies, 2023, ApJ, 958, 117.
- 6. Huang Shifeng, Jiang Ning, **Lin Zheyu**, et al., AT2018dyk revisited: a tidal disruption event candidate with prominent infrared echo and delayed X-ray emission in a LINER galaxy, 2023, MNRAS, 525, 4057.
- 5. Wang Tinggui, Liu Guilin, Cai Zhenyi, et al., Science with the 2.5-meter Wide Field Survey Telescope (WFST), 2023, SCPMA, 66, 109512.

- 4. Zhu Jiazheng, Jiang Ning, Wang Tinggui, et al., AT 2023clx: The Faintest and Closest Optical Tidal Disruption Event Discovered in Nearby Star-forming Galaxy NGC 3799, 2023, ApJL, 952, L35.
- 3. Liu Zheng-Yan, **Lin Zhe-Yu**, Yu Ji-Ming, et al., Target-of-Opportunity Observation Detectability of Kilonovae with WFST, 2023, ApJ, 947, 59.
- 2. Luo Yibin, Fan Lulu, Zou Hu, et al., An Overdensity of Red Galaxies around the Hyperluminous Dust-obscured Quasar W1835+4355 at $z=2.3,\,2022,\,\mathrm{ApJ},\,935,\,80.$
- 1. Wang Yibo, Jiang Ning, Wang Tinggui, et al., Discovery of ATLAS17jrp as an Optical-, X-Ray-, and Infrared-bright Tidal Disruption Event in a Star-forming Galaxy, 2022, ApJL, 930, L4.