

Fan Zou

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Professional Positions and Education

- 08/2024-present: Postdoctoral Research Fellow, University of Michigan (U-M)
- 08/2019-08/2024: Ph.D. Astronomy, Pennsylvania State University (PSU)
Thesis title: *Charting the Coevolution between Massive Black Holes and Galaxies with Deep Cosmic Surveys*
Advisor: Prof. W. N. Brandt
- 09/2015-07/2019: B.S. Astronomy, University of Science and Technology of China (USTC)
Ranked 1st in the astronomy department
Thesis advisor: Prof. Y. Xue

Publications

13 first- or corresponding-author articles, 27 articles in total, 4 more under review.
H-index = 11

● **First- or corresponding-author articles**

1. **F. Zou**, E. Gallo, A. C. Seth et al.; 2025b, ApJ, 992, 176
Central Massive Black Holes Are Not Ubiquitous in Local Low-Mass Galaxies
2. **F. Zou**, W. N. Brandt, E. Gallo et al.; 2025a, ApJ, 990, 94
The X-Ray Link between High Eddington Ratio Dust-Obscured Galaxies (DOGs) and Hot DOGs
3. B. Zhang, **F. Zou**, W. N. Brandt et al.; 2025, ApJ, 978, 9
Investigating the Star-Formation Characteristics of Radio Active Galactic Nuclei
4. **F. Zou**, Z. Yu, W. N. Brandt et al.; 2024b, ApJ, 964, 183
Mapping the Growth of Supermassive Black Holes as a Function of Galaxy Stellar Mass and Redshift
5. **F. Zou**, W. N. Brandt, E. Gallo et al.; 2024a, ApJ, 976, 6
The Cosmic Evolution of the Supermassive Black Hole Population: A Hybrid Observed Accretion and Simulated Mergers Approach
6. N. Cristello, **F. Zou**, W. N. Brandt et al.; 2024b, ApJ, 877, 113
A Rapidly Accreting Active Galactic Nucleus Hidden in a Dust-Obscured Galaxy at $z \sim 0.8$
7. N. Cristello, **F. Zou**, W. N. Brandt et al.; 2024a, ApJ, 962, 156
Investigating the Star Formation Rates of Active Galactic Nucleus Hosts Relative to the Star-forming Main Sequence

8. **F. Zou**, W. N. Brandt, Q. Ni et al.; 2023, ApJ, 950, 136
Identification and Characterization of a Large Sample of Distant Active Dwarf Galaxies in XMM-SERVS
 9. **F. Zou**, W. N. Brandt, C.-T. Chen et al.; 2022, ApJS, 262, 15
Spectral Energy Distributions in Three Deep-Drilling Fields of the Vera C. Rubin Observatory Legacy Survey of Space and Time: Source Classification and Galaxy Properties
 10. **F. Zou**, G. Yang, W. N. Brandt et al.; 2021b, RNAAS, 5, 56
Photometric Redshifts in the W-CDF-S and ELAIS-S1 Fields Based on Forced Photometry from 0.36 to 4.5 Microns
 11. **F. Zou**, W. N. Brandt, M. Lacy et al.; 2021a, RNAAS, 5, 31
A Multi-band Forced-photometry Catalog in the ELAIS-S1 Field
 12. **F. Zou**, W. N. Brandt, F. Vito et al.; 2020, MNRAS, 499, 1823
X-ray properties of dust-obscured galaxies with broad optical/UV emission lines
 13. **F. Zou**, G. Yang, W. N. Brandt et al.; 2019, ApJ, 878, 11
The Host-Galaxy Properties of Type 1 versus Type 2 Active Galactic Nuclei
- **Other contributing-author articles**
14. M. Huang, Y. Xue, S. Li et al.; 2025, The Innovation, in press
The Faintest, Extremely Variable X-ray Tidal Disruption Event from a Supermassive Black Hole Binary?
 15. Z. Yu, W. N. Brandt, **F. Zou** et al.; 2025, ApJ, in press
The Drivers of the Decline in Supermassive Black Hole Growth at $z < 2$
 16. Q. P. Sullivan, Z. Yu, W. N. Brandt et al.; 2025, RNAAS, 9, 204
The Nature of an Unidentified X-ray Source in the 7 Ms Chandra Deep Field-South Catalog
 17. Z. Zuo, G. Cugno, J. Michail et al.; 2025, ApJ, 991, 157
Gone with the Wind: JWST-MIRI Unveils a Strong Outflow from the Quiescent Stellar-Mass Black Hole A0620-00
 18. S. Wang, W. N. Brandt, B. Luo et al.; 2024, ApJ, 974, 2
The Remarkable X-ray Spectra and Variability of the Ultraluminous Weak-Line Quasar SDSS J1521+5202
 19. Z. Yu, W. N. Brandt, **F. Zou** et al.; 2024, ApJ, 977, 210
Dust-Obscured Galaxies in the XMM-SERVS Fields: Selection, Multiwavelength Characterization, and Physical Nature
 20. A. Ayubinia, Y. Xue, H. A. N. Le et al.; 2023, ApJ, 951, 7
Investigation of Stellar Kinematics and Ionized gas Outflows in Local [U]LIRGs
 21. K. Nyland, M. Lacy, W. N. Brandt et al.; 2023, RNAAS, 7, 33
Multi-band Tractor Forced Photometry and Redshifts in the CDFS and XMM-LSS Fields
 22. W. Yan, W. N. Brandt, **F. Zou** et al.; 2023, ApJ, 951, 27
The Most Obscured AGNs in the XMM-SERVS Fields

23. Z. Yu, **F. Zou**, & W. N. Brandt; 2023, RNAAS, 7, 248
Stellar Masses and Star Formation Rates of Galaxies and AGNs in the eFEDS GAMA09 Field
24. S. Zhu, W. N. Brandt, **F. Zou** et al.; 2023, MNRAS, 522, 3506
Radio AGN Selection and Characterization in Three Deep-Drilling Fields of the Vera C. Rubin Observatory Legacy Survey of Space and Time
25. S. Fu, W. N. Brandt, **F. Zou** et al.; 2022, ApJ, 934, 97
The Nature of Luminous Quasars with Very Large C IV Equivalent Widths
26. Q. Ni, W. N. Brandt, C.-T. Chen et al.; 2021, ApJS, 256, 21
The XMM-SERVS survey: XMM-Newton point-source catalogs for the W-CDF-S and ELAIS-S1 fields
27. F. Vito, W. N. Brandt, B. D. Lehmer et al.; 2020, A&A, 642, A149
Chandra reveals a luminous Compton-thick QSO powering a Ly α blob in a $z = 4$ starbursting protocluster
- **Submitted manuscripts**
28. D. D. Nguyen, H. N. Ngo, M. Cappellari et al.; submitted
Measuring the Central Dark Mass in NGC 4258 with JWST/NIRSpec Stellar Kinematics
29. S. Satheesh Sheeba, R. J. Assef, T. Anguita et al.; submitted
VAR-PZ: Constraining the Photometric Redshifts of Quasars using Variability
30. J. Wang, M. Huang, Y. Xue et al.; submitted
A Tidal Disruption Event from an Intermediate-Mass Black Hole Revealed by Comprehensive Multi-wavelength Observations
31. W. Yu, J. J. Ruan, C. J. Burke et al.; submitted
Scalable and Robust Multiband Modeling of AGN Light Curves in Rubin-LSST

Approved Observational Proposals

1. Chandra Cycle 27 GTO proposal (60 ks); PI: G. Garmire, Co-Is: W. N. Brandt and **F. Zou**
Revealing the Smallest Massive Black Holes with Chandra
2. Magellan 2025B proposal (2 nights); PI: **F. Zou**, Co-Is: E. Gallo, W. N. Brandt, and M. Mateo
Active Galactic Nucleus Spectroscopic Survey in ELAIS-S1
3. NuSTAR Cycle 10 proposal (100 ks; \$68k); PI: **F. Zou**, Co-I: W. N. Brandt
X-raying a low-mass galaxy with a powerful, candidate Compton-thick AGN
4. Chandra Cycle 25 GTO proposal (61 ks); PI: G. Garmire, Co-Is: W. N. Brandt and **F. Zou**
A Chandra View of Heavily X-ray-absorbed Dust-obscured Galaxies with High Eddington Ratios
5. Chandra Cycle 25 Archive proposal; PI: Z. Yu, Co-Is: **F. Zou** and W. N. Brandt
Understanding the Black-Hole Accretion - Stellar Mass Relation Over All of Cosmic Time
6. XMM-Newton AO22 proposal (68 ks; \$15k); PI: **F. Zou**, Co-Is: W. N. Brandt, F. Vito, and S. Zhu
Deciphering an X-ray-loud, Eddington-limited, and Dust-obscured Galaxy

7. NuSTAR Cycle 8 proposal (200 ks); PI: S. Zhu, Co-Is: W. N. Brandt and **F. Zou**
The corona-jet connection of RLQs in light of NuSTAR
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Mentored Undergraduate Research

1. A. Kansara (2025). An undergraduate student at University of Michigan
 2. C. Sherwood (2025). An undergraduate student at University of Michigan
 3. S. Wang (2024-2025); one article in preparation. Now a graduate student at Peking University
 4. B. Zhang (2023-2024); one publication in ApJ. Now a graduate student at Pennsylvania State University
 5. N. Cristello (2022-2024); two publications in ApJ. Now a graduate student at Georgetown University
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Services and Professional Membership

- Regularly invited as a referee for journal articles (ApJ, MNRAS, A&A, etc.)
 - Seminar and conference presentations: 43 oral talks and 3 posters in total
 - 2024-2025 organizer of the Extreme Astrophysics Seminar at U-M
 - **Co-lead of the dwarf AGN science in the LSST AGN Science Collaboration**
 - **Full member of the LSST AGN Science Collaboration**
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Awards

- 2024, 2023, PSU: Edward M. Frymoyer Honors Scholarship in the Eberly College of Science (*to recognize the academic achievements of students*)
- 2022, PSU: Downsborough Graduate Fellowship in Astrophysics (*for students with superior academic records or manifesting promise of outstanding academic success*)
- 2022, 2020, PSU: Zaccheus Daniel Fellowship
- 2019, PSU: Homer F. Braddock Scholarship
- 2019, USTC: Guo Moruo Scholarship (*the highest honor for students at USTC*)
- 2019, USTC: Outstanding Undergraduate Thesis Award
- 2018, USTC: National Astronomical Observatories Scholarship
- 2018, 2017, 2016, USTC: Scholarship for the Yan Jici Talent Program in Physics
- 2017, USTC: National Encouragement Scholarship
- 2016, USTC: Seagate Scholarship
- 2015, USTC: Outstanding Freshman Scholarship