

Zhefu Yu

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RESEARCH INTEREST

- Active galactic nuclei and host galaxies
- Supermassive black hole demographics and evolution
- Time domain observations and transients
- X-ray and high-energy observations

EDUCATION

- PhD in astronomy, The Ohio State University Aug 2017 - May 2023
- BSc in astrophysics, Peking University Sep 2013 - Jul 2017

PUBLICATIONS

Summary: **14** papers, **5** first author papers

First Author Papers:

1. **Z. Yu**, P. Martini, A. Penton, et al., 2022, "OzDES Reverberation Mapping Program: Mg II Lags and R-L relation", *MNRAS*, 522, 4132
2. **Z. Yu**, C. S. Kochanek, S. Mathur, et al., 2022, "An X-ray View of the Ambiguous Nuclear Transient AT2019pev", *MNRAS*, 515, 5198
3. **Z. Yu**, P. Martini, A. Penton, et al., 2021, "OzDES Reverberation Mapping Program: The first Mg II lags from five years of monitoring", *MNRAS*, 507, 3771
4. **Z. Yu**, C. S. Kochanek, B. M. Peterson, et al., 2020, "On Reverberation Mapping Lag Uncertainties", *MNRAS*, 491, 6045
5. **Z. Yu**, P. Martini, T. M. Davis, et al., 2020, "Quasar Accretion Disk Sizes from Continuum Reverberation Mapping in the DES Standard Star Fields", *ApJS*, 246, 16

Coauthored Papers:

6. U. Malik, R. Sharp, A. Penton, et al. (incl. **Z. Yu**), 2022, "OzDES Reverberation Mapping Program: H β lags from the 6-year survey", *MNRAS*, 520, 2009
7. B. Czerny, S. Cao, V. Jaiswal, et al. (incl. **Z. Yu**), 2022, "Accretion disks, quasars and cosmology: meandering towards understanding", *Astrophysics and Space Science*, 368, 8
8. U. Malik, R. Sharp, P. Martini, et al. (incl. **Z. Yu**), 2022, "Observational window effects on multi-object Reverberation Mapping", *MNRAS*, 516, 3238
9. A. Penton, U. Malik, T. M. Davis, et al. (incl. **Z. Yu**), 2022, "OzDES Reverberation Mapping Program: Lag recovery reliability for 6-year CIV analysis", *MNRAS*, 509, 4008

10. N. Khadka, **Z. Yu**, M. Zajaček, et al., 2021, “Standardizing reverberation-measured Mg II time-lag quasars, by using the radius-luminosity relation, and constraining cosmological model parameters”, *MNRAS*, 508, 4722
11. T. Li, M. Sun, X. Xu, et al. (incl. **Z. Yu**), 2021, “Faint Active Galactic Nuclei Favor Unexpectedly Long Inter-band Time Lags”, *ApJL*, 912, L29
12. C. Lidman, B. E. Tucker, T. M. Davis, et al. (incl. **Z. Yu**), 2020, “OzDES multi-object fibre spectroscopy for the Dark Energy Survey: results and second data release”, *MNRAS*, 496, 19
13. J. K. Hoormann, P. Martini, T. M. Davis, et al. (incl. **Z. Yu**), 2019, “CIV Black Hole Mass Measurements with the Australian Dark Energy Survey (OzDES)”, *MNRAS*, 487, 3650
14. M. Yue, L. Jiang, Y. Shen, et al. (incl. **Z. Yu**), 2018, “The Sloan Digital Sky Survey Reverberation Mapping Project: Quasar Host Galaxies at $z < 0.8$ from Image Decomposition”, *ApJ*, 863, 21

CONFERENCE PRESENTATIONS

- Dissertation talk, AAS 241, Seattle, USA Jan 2023
- Poster, *What drives the growth of black holes: a decade of reflection*, Reykjavik, Iceland Sep 2022
- Contributed talk, *DECam at 10 Years - Looking Back, Looking Forward*, Tucson, USA Sep 2022
- Poster, *Black Holes at All Scales*, Sedona, USA Aug 2022
- Working group talk, *DES collaboration meeting*, remote May 2022
- Contributed talk, *Quasar and Galaxies through Cosmic Time*, remote Jan 2022
- Invited talk, *LSST SCOC Workshop*, remote Nov 2021
- Plenary session talk, *DES collaboration meeting*, remote May 2021
- Working group talk, *DES collaboration meeting*, remote May 2020
- Contributed talk, *Mapping Central Regions of Active Galactic Nuclei*, Guilin, China Sept 2019
- Working group talk, *DES collaboration meeting*, Texas A&M University May 2018

OBSERVATION EXPERIENCE

- 5 nights, DECam on Victor M. Blanco 4-m telescope, DES program (remote observation) 2020 - 2022
- 1 night, Anglo-Australian Telescope, OzDES program (remote observation) 2020

OBSERVING PROPOSALS

- Anglo-Australian Telescope, “*Weighting Distant Supermassive Black Holes*”, PI: U. Malik 2020
- Victor M. Blanco Telescope, “*Weighting Distant Supermassive Black Holes: Bridging DES and LSST*”, PI: P. Martini 2019
- Anglo-Australian Telescope, “*Weighting Distant Supermassive Black Holes: Bridging DES and LSST*”, PI: T. M. Davis 2019

OUTREACH & SERVICE

- Volunteer, Bexley Public Library Outreach Event Jun 2022
- Referee for 2 papers submitted to *MNRAS* 2021 - 2022

TEACHING EXPERIENCE

- Teaching Assistant, Basic Astrophysics & Planetary Astronomy (ASTRON 2291) Fall 2018
- Teaching Assistant, Basic Astrophysics & Planetary Astronomy (ASTRON 2291) Fall 2017

AWARDS

- Allan K. Markowitz Award in Observational Astronomy, The Ohio State University 2022
- Lin Qiao Prize, Peking University 2016
- Jinhui Scholarship, Peking University 2015 - 2016
- National Astronomical Observatory Scholarship, Chinese Academy of Sciences 2014 - 2015
- Zhang Wenxin Scholarship, Peking University 2013 - 2014