

Lulu Zhang

Curriculum Vitae

The University of Texas at San Antonio
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Education and Position

- July 2023 – **Postdoc**, UTSA, San Antonio, USA
Faculty hosts: Prof. Chris Packham (UTSA), Prof. Erin Hicks (UAA)
- 2017 – 2023 **PhD, Astrophysics**, Peking University, Beijing, China
Advisor: Prof. Luis C. Ho
- 2013 – 2017 **BS, Applied Physics**, Shandong University, Weihai, China

Research Interests

- Characteristics of Spatially Resolved Mid-IR Properties of Different Galactic Systems
- Spatially Resolved Studies of the Interstellar Medium in Different Galaxies
- Multiwavelength Diagnostics of Star Formation and AGN Activities
- Feedback of AGN Activities on Molecular Gas Content

Publications

- 2021 Zhang, L., Ho, L. C., & Xie, Y., “A Method to Extract Spatially Resolved Polycyclic Aromatic Hydrocarbon Emission from Spitzer Spectra: Application to M51”, 2021, AJ, 161, 29
- 2022 Zhang, L., Ho, L. C., & Li, A., “Evidence that Shocks Destroy Small PAH Molecules in Low-luminosity Active Galactic Nuclei”, ApJ, 2022, 939, 22
- 2023 Zhang, L., & Ho, L. C., “Estimating Molecular Gas Content in Galaxies from Polycyclic Aromatic Hydrocarbon Emission”, ApJ, 2023a, 943, 1
- 2023 Zhang, L., & Ho, L. C., “The Contribution of Evolved Stars to Polycyclic Aromatic Hydrocarbon Heating and Implications for Estimating Star Formation Rates”, ApJ, 2023b, 943, 60
- 2023 Zhang, L., & Ho, L. C., “The Interaction between AGN and Starburst Activity in the Circumnuclear Region of NGC 7469 as Viewed with JWST”, 2023c, ApJL in press

Awards

- 2017 – 2023 Award for Research Excellents of PKU
Award for Academic Excellents of PKU
Award for Outstanding Doctoral Graduates of PKU
Award for Outstanding PhD Thesis of PKU (Advisor: Prof. Luis C. Ho)
- 2013 – 2017 Award for 100 Outstanding Undergraduates of SDU, Weihai
Award for Outstanding Undergraduates of Shandong Province
Award for Outstanding Undergraduate Thesis of SDU (Advisor: Prof. Lulu Fan)

Assets

- Experienced in reducing multiband imaging data of GALEX, 2MASS, WISE, AKARI/IRC, Spitzer/IRAC, Spitzer/MIPS, JWST/MIRI, etc.
- Experienced in reducing spectral data cubes of JWST/MRS, Spitzer/IRS, and VLT/MUSE
- Experienced in analyzing BIMA SONG CO J(1-0) data and THINGS HI data
- Experienced in mid-IR full spectrum fitting using custom-designed code and PAHFIT
- Experienced in optical full spectrum fitting using pPXF
- Experienced in galaxy dynamics and kinematics modeling using JAM and 3DBarolo
- Experienced in galaxy 2-dimensional fitting using MgeFit and GALFIT
- Experienced in Bayesian statistics and Markov Chain Monte Carlo method
- Experienced in Python/C++ programming

Conferences & Workshops

- 2023 May **The 25th Guoshoujing Workshop and the Galaxy & Cosmology Frontier Workshop**, Huangshan, China (oral talk)
- 2021 Dec **Chinese Astronomical Society Annual Meeting**, Nanchong, China (oral talk)
- 2021 Nov **KIAA Forum on Gas in Galaxies: for Early Career Scientists**, Online (oral talk)
- 2021 Oct **East Asia AGN Workshop 2021**, Chongqing, China (poster)
- 2021 June **The 11th C-MaNGA Workshop and the CSST-IFS Science Meeting**, Zhuhai, China (oral talk, session chair)
- 2021 May **The 23th Guoshoujing Workshop and the Galaxy & Cosmology Frontier Workshop**, Hangzhou, China (poster)
- 2020 Oct **Supermassive Black Hole Workshop**, Lijiang, China (oral talk)
- 2019 Sep **KIAA Forum on Gas in Galaxies: Probing the Activities and Power Engines from Local to Distant Universe**, Beijing, China (poster)
- 2019 Sep **Chinese Astronomical Society Annual Meeting**, Delingha, China (oral talk)
- 2019 Jan **East Asia AGN Workshop 2019**, Taipei, China (poster)
- 2019 July **Thirty Meter Telescope-MICHI and China: a Workshop on Thermal-IR Astronomy**, Beijing, China (oral talk)
- 2018 July **The 20th Guoshoujing Workshop and the Galaxy & Cosmology Frontier Workshop 2018**, Sanmenxia, China (poster)

Outreach

- 2022 Sep Referee for AAS Journal
- 2022 July Volunteer for “CSST Summer School” at Peking University
- 2020 Spring TA for Graduate Course – “Astrophysics of Diffuse Interstellar Medium”
- 2019 – 2022 Volunteer Cashier for Graduate Fund (Donated by Graduates) of KIAA
- 2019 – 2020 Volunteer Manager for a Astro-wiki Page of the Biweekly ISM&Galaxy Group Meeting
- 2019 Oct LOC for International Conference – “Cosmic Evolution of Quasars” at KIAA
- 2019 Sep Volunteer for International Conference – “KIAA Forum on Gas in Galaxies” at KIAA
- 2018 – 2019 Volunteer Organizer for Weekly “Happy Hour” of KIAA
- 2018 May Volunteer for the 120th Anniversary of Peking University