

YUN-LIANG ZHENG

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<https://al-yl.github.io/>

AI-YL



PROJECTS

Project 1

X-ray Properties and Evolution in Galaxy Groups

2022 – Ongoing

- Measuring the X-ray Luminosities for DESI groups using eROSITA.
- Exploring the correlation between X-ray and multi-waveband properties.
- Exploring the impact of different components of galaxy clusters through X-ray spectral properties.
- Tracing the history of hot gas within galaxy clusters based on Cosmological Hydrodynamic Simulations.

Project 2

Tracing the Assembly Histories for Galaxy Groups with different Compactness

2021 – Ongoing

- Using the mock data based on different cosmological simulations.
- Investigating the biases due to the group finders.

PUBLICATIONS

Journal Articles (Main Contributor)

- Zheng, Y.-L., Yang, X., He, M., Shen, S.-Y., Li, Q., & Li, X. (2023). Measuring the X-ray luminosities of DESI groups from eROSITA Final Equatorial-Depth Survey - I. X-ray luminosity-halo mass scaling relation., 523(4), 4909–4922. doi:10.1093/mnras/stad1684. arXiv: 2306.02594 [astro-ph.GA]
- Zheng, Y.-L., Shen, S.-Y., & Feng, S. (2022). The Compactness of Galaxy Groups in the Sloan Digital Sky Survey., 926(2), 119. doi:10.3847/1538-4357/ac43ba. arXiv: 2112.07871 [astro-ph.GA]
- Zheng, Y.-L., & Shen, S.-Y. (2021). Compact Groups of Galaxies in Sloan Digital Sky Survey and LAMOST Spectral Survey. II. Dynamical Properties of Isolated and Embedded Groups., 911(2), 105. doi:10.3847/1538-4357/abeaa2. arXiv: 2102.12804 [astro-ph.GA]

EXPERIENCE

PostDoc

Shanghai Jiao Tong University

Feb 2022 – Ongoing Shanghai

EDUCATION

Ph.D. in Astrophysics

Shanghai Astronomical Observatory

Sept 2015 – Nov 2021

Thesis title: Compact Groups of Galaxies and the Compactness of Galaxy Groups

Joint-MSc. in Astrophysics

University of Science and Technology of China

Sept 2015 – Aug 2016

BSc. in Physics

Shanghai Normal University

Sept 2010 – Aug 2014

STRENGTHS

Python (Main)

C

Fortran

R

CIGALE

ESO-MIDAS

EXSAS

eSASS

- Zheng, Y.-L., & Shen, S.-Y. (2020). Compact Groups of Galaxies in Sloan Digital Sky Survey and LAMOST Spectral Survey. I. The Catalogs., 246(1), 12. doi:10.3847/1538-4365/ab5c26. arXiv: 1911.11478 [astro-ph.GA]
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