Jinning LIANG

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RESEARCH INTERESTS

Keywords: AGN feedback, galaxy formation theory, galactic dynamics, galactic chemical evolution, cosmology, numerical simulation, semi-analytical model

EDUCATION

The Institute for Computational Cosmology, Durham University

Oct 2023 - Present

Ph.D. in Physics, Advisor: Prof. Cedric Lacey

School of Physics and Technology, Wuhan University (WHU)

Sep 2019 - Jun 2023

Bachelor of Science in Physics

> Astronomy Class

Sep 2020 - Jun 2023

(Selected from pool of 280 students due to outstanding performance and enthusiasm for astronomy)

- > GPA: 3.79/4.00; 90.12/100; Ranking: 1/196
- > Core coursework and Grades:

Fluid Mechanics (98), Thermodynamics and Statistical Physics (98), Machine Learning (96), Computational Physics (95)

The Kavli Institute for Astronomy and Astrophysics, Peking University

Mar 2023 - Apr 2023

Visiting Scholar

Department of Astronomy, Peking University

Jul 2022

CSST-Galaxies Observation Summer School Student

Shanghai Academic Observatory (SHAO)

Jan 2022 - Feb 2022

Visiting Scholar

PUBLICATIONS (* DENOTES CO-FIRST AUTHOR)

[1] **Jinning Liang**, F. Jiang, H.J. Mo et al., *Connection between galaxy morphology and dark-matter halo structure I:* kinematic decomposition and running threshold of thin discs, In preparation, 2024

- [2] Jinning Liang, F. Jiang et al., Constrain the Dark Matter Distribution of Ultra-diffuse Galaxies with Globular-Cluster Mass Segregation: A Case Study with NGC5846-UDG1, ApJ (2023) [2304.14431]
- [3] Jinning Liang, E. Gjergo & X. Fan, Assessing stellar yields in Galaxy chemical evolution: benchmark on observational stellar abundance patterns, MNRAS 522 (2023) 863 [2304.00208]
- [4] E. Gjergo, A.G. Sorokin, A. Ruth, E. Spitoni, F. Matteucci, X. Fan, **Jinning Liang** et al., *GalCEM I A* Publicly-Available Detailed Isotopic Chemical Evolution Code, ApJS 264 (2023) 44 [2301.02257]
- [5] H. Liu*, Jinning Liang* & J. Jia, Deflection and Gravitational lensing of null and timelike signals in the Kiselev black hole spacetime in the weak field limit, Class. Quantum. Grav 39 (2022) 195013 [2204.04519]

TEACHING

PHYS2631 Stars & Galaxies, Durham University	
Workshop Demonstrator	

Oct 2023 - Apr 2024

SCIENTIFIC OUTREACH

Celebrate Scienc	e, Durham	University
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2023

Educated children with basic knowledge and illustration about gravitational lensing and galaxy formation

TALKS (* DENOTES INVITED TALK)	
[1] Seminar Talk*, Shanghai Astronomical Observatory, Shanghai, China	2023
Connection between galaxy morphology and dark-matter halo structure	
[2] Seminar Talk*, Shanghai Jiaotong University, Shanghai, China	2023
Dark matter properties and its connection with galaxy morphology	
[3] Seminar Talk (online), University of Arizona, Arizona, AZ, USA	2022
Globular Clusters in UDGs	
[4] Conference Talk, ISM Physics and Chemistry Conference, Yichang, Hubei, China	2022
Galactic stellar abundance scatter investigated through yield analysis in galaxy chemical evolution	

SELECTED HONORS AND AWARDS

SELECTED HONORS AND AWARDS		
Yu Gang - Song Xiao Scholarship of Wuhan University	45/30000	2022
First-class Scholarship of Wuhan University	Top 5%	2022
MCM&ICM Finalist Award	Top 2%	2022

3/600

Programming Languages & Software: Python (Extensively), Mathematica (Extensively), Matlab and LaTeX

Language: Mandarin (Native), English (Proficient) Simulation Packages: *IllustrisTNG*, *EAGLE*, *NuPyCEE* and *SatGen*