

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
<i>Ph.D. in Physics, Advisor: Prof. Cedric Lacey</i>	
School of Physics and Technology, Wuhan University (WHU)	Sep 2019 - Jun 2023
<i>Bachelor of Science in Physics</i>	
➤ 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
<i>Visiting Scholar</i>	
Department of Astronomy, Peking University	Jul 2022
<i>CSST-Galaxies Observation Summer School Student</i>	
Shanghai Academic Observatory (SHAO)	Jan 2022 - Feb 2022
<i>Visiting Scholar</i>	

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	Oct 2023 - Apr 2024
<i>Workshop Demonstrator</i>	

SCIENTIFIC OUTREACH

Celebrate Science, Durham University	2023
<i>Educated children with basic knowledge and illustration about gravitational lensing and galaxy formation</i>	

TALKS (* DENOTES INVITED TALK)

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

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

SKILLS

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

Language: Mandarin (Native), English (Proficient)

Simulation Packages: *IllustrisTNG*, *EAGLE*, *NuPyCEE* and *SatGen*