

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 <i>Ph.D. in Physics, Advisor: Prof. Cedric Lacey</i>	Oct 2023 - Present
School of Physics and Technology, Wuhan University (WHU) <i>Bachelor of Science in Physics</i>	Sep 2019 - Jun 2023
➤ Astronomy Class (Selected from pool of 280 students due to outstanding performance and enthusiasm for astronomy)	Sep 2020 - Jun 2023
➤ 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 <i>Visiting Scholar</i>	Mar 2023 - Apr 2023
Department of Astronomy, Peking University <i>CSST-Galaxies Observation Summer School Student</i>	Jul 2022
Shanghai Academic Observatory (SHAO) <i>Visiting Scholar</i>	Jan 2022 - Feb 2022

PUBLICATIONS (* Denotes co-first author, † Denotes corresponding 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* **964** (2024) 53 [[2304.14431](https://arxiv.org/abs/2304.14431)]
- [3] **Jinning Liang**, E. Gjergeric[†] & X. Fan, *Assessing stellar yields in Galaxy chemical evolution: benchmark on observational stellar abundance patterns*, *MNRAS* **522** (2023) 863 [[2304.00208](https://arxiv.org/abs/2304.00208)]
- [4] E. Gjergeric[†], 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](https://arxiv.org/abs/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](https://arxiv.org/abs/2204.04519)]

TEACHING

PHYS2631 Stars & Galaxies, Durham University <i>Workshop Demonstrator</i>	Oct 2023 - Apr 2024
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SCIENTIFIC OUTREACH

Celebrate Science, Durham University <i>Educated children with basic knowledge and illustration about gravitational lensing and galaxy formation</i>	2023
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TALKS (* Denotes invited talk)

- [1] Workshop Talk, 20th Durham-Edinburgh eXtragalactic (DEX) Workshop, Durham, UK
New morphological decomposition method and varying circularity threshold 2023
- [2] **Seminar Talk***, Shanghai Astronomical Observatory, Shanghai, China
Connection between galaxy morphology and dark-matter halo structure 2023
- [3] **Seminar Talk***, Shanghai Jiaotong University, Shanghai, China
Dark matter properties and its connection with galaxy morphology 2023
- [4] Seminar Talk (online), University of Arizona, Arizona, AZ, USA
Globular Clusters in UDGs 2022
- [5] Conference Talk, ISM Physics and Chemistry Conference, Yichang, Hubei, China
Galactic stellar abundance scatter investigated through yield analysis in galaxy chemical evolution 2022

SELECTED HONORS AND AWARDS

Yu Gang - Song Xiao Scholarship of Wuhan University	45/30000	2022
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First-class Scholarship of Wuhan University	Top 5%	2022
MCM&ICM Finalist Award	Top 2%	2022
National Astronomical Observatories Scholarship	3/600	2021

SKILLS

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

Language: Mandarin (Native), English (Proficient)

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