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, † 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 (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
Workshop Demonstrator

SCIENTIFIC OUTREACH

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

TALKS (* Denotes invited talk)

[1] Workshop Talk, 20th Durham-Edinburgh eXtragalatic (DEX) Workshop, Durham, UK 2023
New morphological decomposition method and varying circularity threshold
[2] **Seminar Talk***, Shanghai Astronomical Observatory, Shanghai, China 2023
Connection between galaxy morphology and dark-matter halo structure
[3] **Seminar Talk***, Shanghai Jiaotong University, Shanghai, China 2023
Dark matter properties and its connection with galaxy morphology
[4] Seminar Talk (online), University of Arizona, Arizona, AZ, USA 2022
Globular Clusters in UDGs
[5] 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

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
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*