

Jianhao Wu

Personal Website: rushingfox.github.io

EDUCATION

University of Wisconsin-Madison (UW-Madison)

Email: jianhao.wu@wisc.edu

Sep. 2025 – June 2030

Madison, Wisconsin, USA

- DOCTOR OF PHILOSOPHY in *Physics*, 2030 (EXPECTED).

The Chinese University of Hong Kong (CUHK)

Email: jianhao.wu@link.cuhk.edu.hk

Aug. 2022 – July 2025

Sha Tin, NT, Hong Kong SAR

- MASTER OF PHILOSOPHY in *Physics*, 2025. Advisor: Prof. T. K. CHAN
- MASTER OF SCIENCE in *Physics*, 2023.

Wuhan University (WHU)

Email: jianhao.wu@whu.edu.cn

Sep. 2018 – June 2022

Wuhan, Hubei, China

- BACHELOR OF ENGINEERING in *Computer Science and Technology*, 2022.

PUBLICATION

Cosmological zoom-in simulations of Milky Way host size dark matter halos with a blue-tilted primordial power spectrum

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- **Jianhao Wu**, Tsang Keung Chan, Victor J. Forouhar Moreno. Published by *Phys.Rev.D* 2025 [[arXiv:2412.16072](#)] [[astro-ph.CO](#)]
- **Third Prize** on *The 11th Hong Kong University Student Innovation and Entrepreneurship Competition*

Cosmic-ray electrons and the magnetic field of the North Polar Spur

1

- Guobin Mou, **Jianhao Wu**, Yoshiaki Sofue. Published by *A&A* 2023 [[arXiv:2212.04306](#)] [[astro-ph.HE](#)]
- **Best Presentation Award** on *International Symposium on Cosmology and Particle Astrophysics CosPA 2024*

SELECTED AWARDS

Graduate Studentship

- UW-Madison **Graduate TA/RA Studentship**, by UW-Madison: $\sim 175K$ USD for 5 year PhD
- UW-Madison **Physics Department Incoming Student Scholarship**, by UW-Madison: $\sim 5K$ USD
- CUHK Master of Philosophy **Postgraduate Studentship**, by CUHK: $440K$ HKD $\sim 56K$ USD for 2 year MPhil
- CUHK Research Postgraduate Student **Grant for Overseas Academic Activities**, by CUHK: $10K$ HKD $\sim 1.3K$ USD

Merit-Based Awards

- **Third Prize** of The 11th Hong Kong University Student Innovation and Entrepreneurship Competition, by Hong Kong New Generation Cultural Association: $3K$ HKD ~ 400 USD
- **Reaching Out Award** for Overseas Academic Activities, by HKSAR government & CUHK: $10K$ HKD $\sim 1.3K$ USD
- **Best Presentation Award** of CosPA Symposium 2024, by Asia-Pacific Organization of Cosmology and Particle-Astrophysics: $1.5K$ RMB ~ 200 USD
- CUHK MSc in Physics **Excellent Performance Award**, by CUHK: $1K$ HKD ~ 130 USD

TALKS & POSTERS

Workshop on the Physics and the Mathematics of the Universe (W(I)PMU)

Oral & Poster Presentation

Kavli IPMU, The University of Tokyo

Japan, Jul. 2025

- Based on my paper: [Phys. Rev. D 112, 023512 \[arxiv:2412.16072\]](#); [See slides here](#); [See poster here](#)

International Symposium on Cosmology and Particle Astrophysics: CosPA 2025

Oral Presentation

Asia Pacific Organization of Cosmology and Particle Astrophysics (APCosPA)

Korea, Jul. 2025

- Based on my paper: [Phys. Rev. D 112, 023512 \[arxiv:2412.16072\]](#); [See slides here](#)

Expanding the Boundaries of Dark Matter Halo

Oral Presentation

Shanghai Jiao Tong University

China Mainland, Mar. 2025

- Based on my paper: [Phys. Rev. D 112, 023512 \[arxiv:2412.16072\]](#); [See slides here](#)

The 2nd LHAASO Symposium

Poster Presentation

Dept. of Phys., The Chinese University of Hong Kong

Hong Kong SAR, Mar. 2025

- Based on my paper: [Phys. Rev. D 112, 023512 \[arxiv:2412.16072\]](#); [See poster here](#)

CUHK Cosmology Journal Club

Seminar Talk

Dept. of Phys., The Chinese University of Hong Kong

Hong Kong SAR, Feb. 2025

- Based on my paper: [Phys. Rev. D 112, 023512 \[arxiv:2412.16072\]](#); [See slides here](#)

OSU CCAPP AstroParticle Lunch

Center for Cosmology and AstroParticle Physics (CCAPP), Ohio State University

- Based on my paper: [Phys. Rev. D 112, 023512 \[arxiv:2412.16072\]](#); [See slides here](#)

(Online) Seminar Talk
United States, Jan. 2025

IAS Program on Fundamental Physics (FP 2025)

Institute for Advanced Study, The Hong Kong University of Science and Technology

- Based on my paper: [Phys. Rev. D 112, 023512 \[arxiv:2412.16072\]](#); [See slides here](#)

Oral Presentation
Hong Kong SAR, Jan. 2025

2024 Joint Annual Conference of Physical Societies in Guangdong-HK-Macao Greater Bay Area

Guangdong Physics Society & The Physical Society of Macao & Physical Society of HK

- Based on my paper: [Phys. Rev. D 112, 023512 \[arxiv:2412.16072\]](#); [See poster here](#)

Poster Presentation
Macau SAR, Aug. 2024

International Symposium on Cosmology and Particle Astrophysics - CosPA 2024

Asia Pacific Organization of Cosmology and Particle Astrophysics (APCosPA)

- Based on my paper: [Astronomy & Astrophysics 676, L3, 2023 \[arxiv:2212.04306\]](#); [See slides here](#)
- **Best Presentation Award** of 2024

Oral Presentation
China Mainland, Jun. 2024

International Conference on Resolving Galaxy Ecosystems Across All Scales

Dept. of Phys. & Institute of Theoretical Physics, The Chinese University of Hong Kong

- Based on my paper: [Astronomy & Astrophysics 676, L3, 2023 \[arxiv:2212.04306\]](#); [See slides here](#)

Oral Presentation
Hong Kong SAR, Dec. 2023

TEACHING**Teaching Assistant@UW-Madison of Physics 202 General Physics**

Department of Physics, University of Wisconsin-Madison

For 1 Term
25 Fall

Teaching Assistant@CUHK of UGEB 2411 Astronomy – A Short Introduction

Department of Physics, The Chinese University of Hong Kong

For 4 Terms
23 Fall, 24 Spring & Fall, 25 Spring

STANDARDIZED TESTS

- IELTS Academic: 7.5
- **GRE Subject Physics: 940** (87% in percentile)

May 2024
Oct. 2024