

Jianhao Wu

JianhaoWu.com • Machine Learning for Astrophysics • Computational Cosmology

EDUCATION

University of Wisconsin-Madison (UW–Madison) JIANHAO.WU@WISC.EDU • DOCTOR OF PHILOSOPHY in Physics, 2030 (EXPECTED).	Sep. 2025 – Jun. 2030 WI, USA Advisor: Prof. Mariel Pettee
The Chinese University of Hong Kong (CUHK) JIANHAO.WU@LINK.CUHK.EDU.HK • MASTER OF PHILOSOPHY in Physics, 2025. • MASTER OF SCIENCE in Physics, 2023.	Aug. 2022 – Jul. 2025 NT, HKSAR Advisor: Prof. T. K. CHAN
Wuhan University (WHU) JIANHAO.WU@WHU.EDU.CN • BACHELOR OF ENGINEERING in Computer Science and Technology, 2022.	Sep. 2018 – Jun. 2022 Hubei, China

PUBLICATIONS

Cosmological zoom-in simulations of Milky Way host mass dark matter halos with a blue-tilted primordial power spectrum • Jianhao Wu, Tsang Keung Chan, Victor J. Forouhar Moreno. Published by <i>Phys.Rev.D</i> 2025 [arXiv:2412.16072] [astro-ph.CO] GitHub Zenodo code Zenodo data • Third Prize on The 11th Hong Kong University Student Innovation and Entrepreneurship Competition • Featured by CUHK Physics News on 2025 June 19; Featured by Official Instagram of CUHK Faculty of Science on 2025 July 7; Featured by CUHK Physics Newsletter 40th Issue (Oct-2025)	2
Cosmic-ray electrons and the magnetic field of the North Polar Spur • Guobin Mou, Jianhao Wu, Yoshiaki Sofue. Published by <i>A&A</i> 2023 (Letter) [arXiv:2212.04306] [astro-ph.HE] • Best Presentation Award on International Symposium on Cosmology and Particle Astrophysics CosPA 2024 • Featured by CUHK Physics Newsletter 38th Issue (Oct-2024)	1

TALKS & POSTERS

7th China-Chile Bilateral Conference for Astronomy <i>The University of Hong Kong</i> • Paper: In prep Poster	Poster Presentation <i>Hong Kong SAR, Jan. 2026</i>
Workshop on the Physics and the Mathematics of the Universe (W(I)PMU) <i>Kavli IPMU, The University of Tokyo</i> • Paper: Phys. Rev. D Slides Poster	Oral & Poster Presentation <i>Japan, Jul. 2025</i>
International Symposium on Cosmology and Particle Astrophysics: CosPA 2025 <i>Asia Pacific Organization of Cosmology and Particle Astrophysics (APCosPA)</i> • Paper: Phys. Rev. D Slides	Oral Presentation <i>Korea, Jul. 2025</i>
Expanding the Boundaries of Dark Matter Halo <i>Shanghai Jiao Tong University</i> • Paper: Phys. Rev. D Slides	Oral Presentation <i>China Mainland, May. 2025</i>
The 2nd LHAASO Symposium <i>Dept. of Phys., The Chinese University of Hong Kong</i> • Paper: Phys. Rev. D Poster	Poster Presentation <i>Hong Kong SAR, Mar. 2025</i>
CUHK Cosmology Journal Club <i>Dept. of Phys., The Chinese University of Hong Kong</i> • Paper: Phys. Rev. D Slides	Seminar Talk <i>Hong Kong SAR, Feb. 2025</i>
OSU CCAPP AstroParticle Lunch <i>Center for Cosmology and AstroParticle Physics (CCAPP), Ohio State University</i> • Paper: Phys. Rev. D Slides	(Online) Seminar Talk <i>United States, Jan. 2025</i>
IAS Program on Fundamental Physics (FP 2025) <i>Institute for Advanced Study, The Hong Kong University of Science and Technology</i> • Paper: Phys. Rev. D Slides	Oral Presentation <i>Hong Kong SAR, Jan. 2025</i>
2024 Joint Annual Conference of Physical Societies in Guangdong-HK-Macao Greater Bay Area <i>Guangdong Physics Society & The Physical Society of Macao & Physical Society of HK</i>	Poster Presentation <i>Macau SAR, Aug. 2024</i>

- Paper: [Phys. Rev. D](#) [Poster](#)

International Symposium on Cosmology and Particle Astrophysics - CosPA 2024

Oral Presentation

Asia Pacific Organization of Cosmology and Particle Astrophysics (APCosPA)

China Mainland, Jun. 2024

- Paper: [Astronomy & Astrophysics](#) [Slides](#)
- **Best Presentation Award** of 2024

International Conference on Resolving Galaxy Ecosystems Across All Scales

Oral Presentation

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

Hong Kong SAR, Dec. 2023

- Paper: [Astronomy & Astrophysics](#) [Slides](#)

SELECTED AWARDS

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 ~ 1.3K USD
- **Best Presentation Award** of CosPA Symposium 2024, by Asia-Pacific Organization of Cosmology and Particle-Astrophysics: 1.5K RMB ~ 200 USD
- **Finland Scholarship** for master's program, by Finland Government & Helsinki Univeristy: 40K EUR ~ 46K USD
- CUHK MSc in Physics **Excellent Performance Award**, by CUHK: 1K HKD ~ 130 USD

Graduate Studentship

- UW-Madison **Graduate TA/RA Studentship**, by UW-Madison: ~ 175K USD for 5 years
- UW-Madison **Physics Department Incoming Student Scholarship**, by UW-Madison: ~ 5K USD
- CUHK Master of Philosophy **Postgraduate Studentship**, by CUHK: 450K HKD ~ 57K USD for 2 years
- CUHK Research Postgraduate **Grant for Overseas Academic Activities**, by CUHK: 10K HKD ~ 1.3K USD

PROFESSIONAL SERVICES

- Reviewer, ICLR 2026 Workshop on Foundation Models for Science (FM4Science)

TEACHING

Teaching Assistant@UW-Madison of Physics 202 General Physics

For 2 Terms

Department of Physics, University of Wisconsin-Madison

25 Fall, 26 Spring

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

For 4 Terms

Department of Physics, The Chinese University of Hong Kong

23 Fall, 24 Spring & Fall, 25 Spring

STANDARDIZED TESTS

- IELTS Academic: 7.5 May 2024
- **GRE Subject Physics: 940** (87% in percentile) Oct. 2024