

Xian-Yu Wang

PhD in Astrophysics

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CURRENT POSITION

Indiana University

Postdoctoral Research Associate

Advisor: Songhu Wang

Bloomington, IN

Feb. 2023 - present

EDUCATION

University of Chinese Academy of Sciences (UCAS)

Beijing, China

National Astronomical Observatories, Chinese Academy of Sciences (NAOC)

Ph.D in Astrophysics

Jan. 2023

Thesis: *Study of exoplanets based on high-precision
photometric and spectroscopic observations*

Advisor: Zhen-Yu Wu

Shandong University

Weihai, Shandong, China

B.S in Space Science and Technology

Jun. 2018

AWARDS

2023

National Scholarship

Highest scholarship given by Ministry of Education of the People's Republic of China

2022

Joint PhD Training Program Scholarship, UCAS

Scholarship provided by UCAS to fund a year-long visit to Indiana University with

2021

Pacemaker to Merit Student, NAOC Top 1%

2019

Excellent Student Leader, NAOC

2019

Merit Student, NAOC Top 20%

2018

National Astronomical Observatory Scholarship

Scholarship for outstanding undergrads in astronomy research

2018

Outstanding Undergraduate Thesis Award

2015-18

Academic Scholarship Undergraduate scholarship program at the Shandong University

OBSERVING PROGRAMS

WIYN, NEID, 2022B, 5 nights, Co-I: Probing Stellar Obliquities with NEID

LCOGT-1m, 2020A, 30 hours, PI, Photometric Follow-Up of Apparent Decaying Orbital WASP-12 b

LCOGT-1m, 2021A, 30 hours, PI, Understanding the shortening period of WASP-12 system

STUDENTS MENTORING

Undergraduate:

* Jace Rusznak (third-year undergraduate student at Indiana University)

2023 - present

Graduate:

* Jiamei Yang (now Phd Candidate at Beijing Normal University)

2021

* Jessica Ranshaw (first-year graduate student at Indiana University)
co-supervised with Songhu Wang

2022 - present

May 20, 2023

PUBLICATIONS (4 First Author, 2 Second Author, 16 Total)

First Author:

- * *The Aligned Orbit of WASP-148b, the Only Known Hot Jupiter with a Nearby Warm Jupiter Companion, from NEID and HIRES*
Xian-Yu Wang, Malena Rice, Songhu Wang, et al. 2022, **The Astrophysical Journal Letters**, 926, L8
- * *Transiting Exoplanet Monitoring Project (TEMP). VI. The Homogeneous Refinement of System Parameters for 39 Transiting Hot Jupiters with 127 New Light Curves*
Xian-Yu Wang, Yong-Hao Wang, Songhu Wang, et al. 2021, **The Astrophysical Journal Supplement Series**, 255, 15
- * *Transiting Exoplanet Monitoring Project (TEMP). IV. Refined System Parameters, Transit Timing Variations and Orbital Stability of the Transiting Planetary System HAT-P-25*
Xian-Yu Wang, Songhu Wang, Tobias Hinse, et al. 2018, **The Publications of the Astronomical Society of the Pacific**, 130, 064401
- * *New analysis of the fraction of observable nights at astronomical sites based on FengYun-2 satellite data*
Xian-Yu Wang, Zhen-Yu Wu, Jing Liu, et al. 2022, **Monthly Notices of the Royal Astronomical Society**, 511, 4

Second Author:

- * *Photometric follow-up observations and transit timing analysis of HAT-P-37b*
Jia-Mei Yang, **Xian-Yu Wang**, Kai Li, et al. 2021, **Publications of the Astronomical Society of Japan**, 73, 1010
- * *Transiting Exoplanet Monitoring Project (TEMP). I. Refined System Parameters and Transit variations of HAT-P-29*
Songhu Wang, **Xian-Yu Wang**, Yong-Hao Wang, et al. 2018, **The Astronomical Journal**, 156, 181

Contributing Author:

- * *The Orbital Architecture of Qatar-6: A Fully Aligned Three-body System?*
Malena Rice, Songhu Wang, Konstantin Gerbig, and 5 coauthors including **Xian-Yu Wang**, 2023, **The Astronomical Journal**, 165, 65
- * *TOI-1136 is a Young, Coplanar, Aligned Planetary System in a Pristine Resonant Chain*
Fei Dai, Kento Masuda, Corey Beard and 60 coauthors including **Xian-Yu Wang**, 2023, **The Astronomical Journal**, 165, 33
- * *A Tendency Toward Alignment in Single-star Warm-Jupiter Systems*
Malena Rice, Songhu Wang, **Xian-Yu Wang** et al. 2022, **The Astronomical Journal**, 164, 104
- * *Revisiting the Full Sets of Orbital Parameters for the XO-3 System: No evidence for Temporal Variation of the Spin-Orbit Angle*
Keduse Worku, Songhu Wang, Jennifer Burt, and 14 coauthors including **Xian-Yu Wang**, 2022, **The Astronomical Journal**, 163, 158
- * *SOLES I: The Spin–Orbit Alignment of K2-140 b*
Malena Rice, Songhu Wang, Andrew W. Howard, and 8 coauthors including **Xian-Yu Wang**, 2021, **The Astronomical Journal**, 162, 182
- * *The Aligned Orbit of the Eccentric Warm Jupiter K2-232b*
Songhu Wang, Joshua N. Winn, Brett C. Addison, and 8 coauthors including **Xian-Yu Wang**, 2021, **The Astronomical Journal**, 162, 50
- * *The Youngest Planet to Have a Spin-Orbit Alignment Measurement AU Mic b*
Brett C. Addison, Jonathan Horner, Brett C. Addison, and 8 coauthors including **Xian-Yu Wang**, 2021, **The Astronomical Journal**, 162, 50

- * *TOI 564 b and TOI 905 b: Grazing and Fully Transiting Hot Jupiters Discovered by TESS*
Allen B. Davis, Songhu Wang, Matias Jones, and 54 coauthors including **Xian-Yu Wang**, 2020, **The Astronomical Journal**, 160, 229
- * *HD 202772A b: A Transiting Hot Jupiter Around a Bright, Mildly Evolved Star in Discovered by TESS*
Songhu Wang, Matias Jones, Avi Shporer, and 57 coauthors including **Xian-Yu Wang**, 2018, **The Astronomical Journal**, 157, 51
- * *A possible giant planet orbiting the cataclysmic variable LX Ser*
Li Kai, Hu Shaoming, Zhou Jilin and 6 coauthors including **Xian-Yu Wang**, 2017, **Publications of the Astronomical Society of Japan**, 69, 28

SELECTED TALKS AND CONFERENCES

Conference Talks:

- * Observational and Theoretical Aspects of Exoplanets, Singapore (Scheduled) Aug. 2023
3D Configuration of a Compact Multi-giant System Lying at the Stability Boundary
- * Emerging Researchers in Exoplanet Science VII, The Pennsylvania State University Aug. 2022
The Aligned Orbit of WASP-148b and the statistic implications from the distribution of stellar sky-projected obliquities
- * Annual Conference of the Chinese Astronomical Society, Nanchong, China Dec. 2021
Transiting Exoplanet Monitoring Project (TEMP)
- * Annual Conference of the Chinese Astronomical Society, Nanchong, China Dec. 2021
The Aligned Orbit of WASP-148b

Seminar and Lunch Talks:

- * Lunch Talk, Indiana University Bloomington Sep. 2022
Exoplanet characterization by photometric and spectroscopic observations
- * Lunch talk, South-Western Institute For Astronomy Research, Kunming, China Mar. 2022
Exoplanet characterization by photometry and spectroscopy

Conference Posters:

- * Poster, Emerging Researchers in Exoplanet Science Symposium VIII, New Heaven (Scheduled) Jun. 2023
Homogeneous Studies on the Stellar Obliquities
- * Poster, 54th Division on Dynamical Astronomy, Michigan (Scheduled) May. 2023
3D configuration of a compact multi-giant system lying at the stability boundary

OUTREACH

- * **Donation Organizer** organized a successful donation drive, providing 200+ astronomy books to underprivileged students in rural areas. Jun. 2021
- * **Member of the Graduate Student Council** 2021
organized communication activities between graduate students of National Astronomical Observatory of China and Beijing Institute of Genomics
- * **Student director** served Student Psychological Services Center of Shandong University 2017

TEACHING

- * Stellar Structure and Evolution, Teaching assistance 2019
- * Optics, Teaching assistance 2015