

Wenhan ZHOU (周文翰)

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The University of Tokyo, Tokyo, Japan

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Employment

The University of Tokyo

April. 2025 —

Tokyo, Japan

JSPS fellow

EDUCATION

Observatoire de la Côte d’Azur

Jan. 2022 — Dec. 2024

Nice, France

Ph.D. in Astrophysics (supervisor: Patrick Michel)

University of Hong Kong

Sep. 2018 — Apr. 2021

Hong Kong, China

M.Phil. in Physics (supervisor: Meng Su)

Wuhan University

Sep. 2014 — June 2018

Wuhan, China

B.Eng. in Engineering

RESEARCH INTEREST

Small bodies; Dynamics; Planetary system evolution.

FIRST-AUTHOR PUBLICATIONS (including 2 sole-author papers)

1. **Zhou, W. H.**, Michel, P., Delbo, M., Wang, W., Wang, Y., Durech, J., & Hanus, J. (2025), Confined tumbling state as the origin of the excess of slowly rotating asteroids. *Nature Astronomy*, *1-8*.
Highlight: Explain the observed period-diameter distribution of asteroids; supervised a master student.
2. **Zhou, W. H.** (2024), The binary Yarkovsky effect on the primary asteroid with application to singly synchronous binary asteroids. *A&A Letters*, *692, L2*.
Highlight: Complete the basic theoretical framework of the “Binary Yarkovsky” effect.
3. **Zhou, W. H.**, Vokroulicky, D., Kanamaru, M., Agrusa, H., Delbo, P., Pravec, M., & Michel, P. (2024). The Yarkovsky effect on the long-term evolution of binary asteroids. *ApJL*, *968, L3*.
Highlight: Discover the “Binary Yarkovsky” effect.
4. **Zhou, W. H.**, Liu, S., & Lin, D. C. (2024). White Dwarf Magnetospheres: Shielding Volatile Content of Icy Objects and Implications for Volatile Pollution Scarcity. *A&A*, *687, A107*.
5. **Zhou, W. H.**, & Michel, P. (2024). A semi-analytical thermal model for craters with application to the crater-induced YORP effect. *A&A*, *682, A130*.
6. **Zhou, W. H.**, Zhang, Y., Yan, X., & Michel, P. (2022). The crater-induced YORP effect. *A&A*, *668, A70*.
7. **Zhou, W. H.**, Liu, S. F., Zhang, Y., & Lin, D. N. (2022). Observable tests for the light-sail scenario of interstellar objects. *A&A*, *667, A108*.
8. **Zhou, W. H.** (2020). ‘Oumuamua’s Rotation with the Mechanical Torque Produced by Interstellar

Medium. [ApJ, 899\(1\), 42.](#)

REFERENCES

Patrick Michel (michelp@oca.eu)
Observatoire de la Côte d’Azur, France
Marco Delbo (delbo@oca.eu)
Observatoire de la Côte d’Azur, France
David Vokrouhlický (vokrouhl@cesnet.cz)
Charles University, Czech
Douglas N.C. Lin (lin@ucolick.org)
UC Santa Cruz, USA

VISITING EXPERIENCE

The University of Tokyo (host: Seiji Sugita)	<i>Aug. 2024 - Sep. 2024</i>
Tokyo, Japan	
Charles University (host: David Vokrouhlický)	<i>May 2024 - Jun. 2024</i>
Prague, Czech Republic	

CO-AUTHORED PUBLICATIONS²

- Athanasopoulos, D., Hanuš, J., Avdellidou, C., ... **Zhou, W. H.** & Agrusa, H. (2024). Spin states of X-complex asteroids in the inner main belt-I. Investigating Athor and Zita collisional families. [A&A, 690, A215.](#)
- Ren, B. B., Rebollido, I., Choquet, É., **Zhou, W. H.**, Perrin, M. D., Schneider, G., ... & Soummer, R. (2023). Debris Disk Color with the Hubble Space Telescope. [A&A, 672, A114.](#)

CONFERENCES/WORKSHOPS/SEMINARS

Group Seminar	<i>Feb. 2025</i>
Shanghai Astronomical Observatory, Chinese Academy of Sciences, China	
Group Seminar	<i>Dec. 2024</i>
School of Astronomy and Space Science, Nanjing University, China	
Group Seminar	<i>Oct. 2024</i>
Center for Astrophysics, Harvard, the USA	
EPSC2024	<i>Sep. 2024</i>
Berlin, Germany	
Group Seminar	<i>Sep. 2024</i>
National Astronomical Observatory of Japan, Japan	
Visitor Talk	<i>Sep. 2024</i>
Earth-Life Science Institute, Tokyo Tech, Japan	
Group seminar	<i>Sep. 2024</i>
Department of Earth and planetary science, UTokyo, Japan	
Group seminar	<i>Aug. 2024</i>
Department of Space and Planetary Sciences, Sun Yat-Sen University, China	
Group seminar	<i>Aug. 2024</i>
Department of Earth and space sciences, SUSTech, China	
Dynamics and physics in the solar system	<i>Jun. 2024</i>
University of Pisa, Pisa, Italy	
HERA International Workshop 2024	<i>Apr. 2024</i>
ESTEC, Noordwijk, Netherland	
Winter School on small bodies in the Solar System	<i>Feb. 2024</i>

Ecole de Physique des Houches, Les Houches, France	
HERA International Workshop 2023	<i>Oct. 2023</i>
ESTEC, Noordwijk, Netherland	
4th Workshop on Thermal Models for Planetary Science	<i>Apr. 2023</i>
ESTEC, Noordwijk, Netherland	
Workshop on applications of radar instruments in planetary science	<i>Jan. 2023</i>
Beijing, China (online)	
EPSC Meeting 2022	<i>Sep. 2022</i>
Granada, Spain	
HERA International Workshop 2022	<i>May. 2022</i>
Nice, France	
EPSC-DPS Joint Meeting 2019	<i>Sep. 2019</i>
Geneva, Switzerland	
International Symposium on Asteroids and Comets Gravity and Interiors	<i>Dec. 2018</i>
China	

AWARDS

ARC-Space Joint Research Program	<i>Oct. 2024</i>
The University of Aizu	
Early Career Professional and Student bursaries	<i>Sep. 2024</i>
EPSC Meeting 2024	
Outgoing Mobility Aid For the Academic Year 2023-2024	<i>Jun. 2024</i>
University Côte d'Azur	
Early Career Researcher Travel Support	<i>Apr. 2023</i>
4th Workshop on Thermal Models for Planetary Science	
Early Career Professional and Student bursaries	<i>Sep. 2022</i>
EPSC Meeting 2022	
Postgraduate Fellowship	<i>Sep. 2018 – Aug. 2020</i>
University of Hong Kong	
University Scholarship	<i>2017</i>
Wuhan University	

PROFESSIONAL SERVICE

Dynamics group member in HEAR space mission team
Reviewer for Icarus
Reviewer for the Chinese version of the book <i>Fundamental Planetary Science: Physics Chemistry and Habitability</i>

TEACHING EXPERIENCE

University of Hong Kong	<i>Sep. 2018 – Aug. 2020</i>
Teaching assistant (supervisor: Man Kit Yip)	

STUDENT MENTORING

Bonny Y. Wang (Master student)	<i>2023</i>
Carnegie Mellon University; Center for Computational Astrophysics	
<i>Project: Identifying the gap in the rotation distribution of asteroids by the machine learning method</i>	