

Wen-Han ZHOU (周文翰)

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EMPLOYMENT

The University of Tokyo

Tokyo, Japan

JSPS Postdoc Fellow (host: Seiji Sugita)

Apr. 2025 —

EDUCATION

Observatoire de la Côte d’Azur

Nice, France

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

Jan. 2022 — Dec. 2024

University of Hong Kong

Hong Kong, China

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

Sep. 2018 — Apr. 2021

Wuhan University

Wuhan, China

B.Eng. in Engineering

Sep. 2014 — June 2018

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.

CO-AUTHORED PUBLICATIONS

9. 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.
10. 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](#).

VISITING EXPERIENCE

Westlake University (host: Douglas N.C. Lin) Hangzhou, China	<i>Mar. 2025</i>
The University of Tokyo (host: Seiji Sugita) Tokyo, Japan	<i>Aug. 2024 - Sep. 2024</i>
Charles University (host: David Vokrouhlický) Prague, Czech Republic	<i>May 2024 - Jun. 2024</i>

CONFERENCES/WORKSHOPS/SEMINARS

Group Seminar School of Astronomy and Space Science, NJU, China	<i>Mar. 2025</i>
Group Seminar Department of Astronomy, ZJU, China	<i>Mar. 2025</i>
Group Seminar Shanghai Astronomical Observatory, CAS, China	<i>Feb. 2025</i>
Group Seminar School of Astronomy and Space Science, NJU, China	<i>Dec. 2024</i>
Group Seminar Center for Astrophysics, Harvard, USA	<i>Oct. 2024</i>
EPSC2024 Berlin, Germany	<i>Sep. 2024</i>
Group Seminar National Astronomical Observatory of Japan, Japan	<i>Sep. 2024</i>
Visitor Talk Earth-Life Science Institute, Tokyo Tech, Japan	<i>Sep. 2024</i>
Group seminar Department of Earth and planetary science, UTokyo, Japan	<i>Sep. 2024</i>
Group seminar Department of Space and Planetary Sciences, Sun Yat-Sen University, China	<i>Aug. 2024</i>
Group seminar Department of Earth and space sciences, SUSTech, China	<i>Aug. 2024</i>
Dynamics and physics in the solar system University of Pisa, Pisa, Italy	<i>Jun. 2024</i>
HERA International Workshop 2024 ESTEC, Noordwijk, Netherland	<i>Apr. 2024</i>
Winter School on small bodies in the Solar System Ecole de Physique des Houches, Les Houches, France	<i>Feb. 2024</i>
HERA International Workshop 2023 ESTEC, Noordwijk, Netherland	<i>Oct. 2023</i>
4th Workshop on Thermal Models for Planetary Science ESTEC, Noordwijk, Netherland	<i>Apr. 2023</i>
Workshop on applications of radar instruments in planetary science Beijing, China (online)	<i>Jan. 2023</i>
EPSC Meeting 2022 Granada, Spain	<i>Sep. 2022</i>
HERA International Workshop 2022 Nice, France	<i>May. 2022</i>
EPSC-DPS Joint Meeting 2019 Geneva, Switzerland	<i>Sep. 2019</i>
International Symposium on Asteroids and Comets Gravity and Interiors	<i>Dec. 2018</i>

AWARDS

JSPS Fellowship University of Tokyo	<i>Apr. 2025 – Mar. 2027</i>
ARC-Space Joint Research Program The University of Aizu	<i>Oct. 2024</i>
Early Career Professional and Student bursaries EPSC Meeting 2024	<i>Sep. 2024</i>
Outgoing Mobility Aid For the Academic Year 2023-2024 University Côte d’Azur	<i>Jun. 2024</i>
Early Career Researcher Travel Support 4th Workshop on Thermal Models for Planetary Science	<i>Apr. 2023</i>
Early Career Professional and Student bursaries EPSC Meeting 2022	<i>Sep. 2022</i>
Postgraduate Fellowship University of Hong Kong	<i>Sep. 2018 – Aug. 2020</i>
University Scholarship Wuhan University	<i>2017</i>

PROFESSIONAL SERVICE

Dynamics group member in HERA space mission team
Reviewer for Icarus
Reviewer for the Chinese version of the book *Fundamental Planetary Science: Physics Chemistry and Habitability*

TEACHING EXPERIENCE

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

Zehua Qi (PhD student) Nanjing University, Nanjing, China	<i>2025</i>
Yining Zhang (PhD student) Nanjing University, Nanjing, China	<i>2025</i>
Thomas Dyer (Master student) University of Leicester, Leicester, UK	<i>2025</i>
Gabriele Bertinelli (Master student) Observatoire de la Côte d’Azur, Nice, France	<i>2025</i>
Bonny Y. Wang (Master student) Center for Computational Astrophysics, New York, USA <i>Project: Identifying the gap in the rotation distribution of asteroids by the machine learning method</i>	<i>2023</i>

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