

# Wen-Han ZHOU (周文翰)

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## Employment

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**The University of Tokyo**  
Tokyo, Japan  
JSPS fellow

*April. 2025 —*

## EDUCATION

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**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

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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

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**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

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**Westlake University** (host: Douglas N.C. Lin) *Mar. 2025*

Hangzhou, China

**The University of Tokyo** (host: Seiji Sugita) *Aug. 2024 - Sep. 2024*

Tokyo, Japan

**Charles University** (host: David Vokrouhlický) *May 2024 - Jun. 2024*

Prague, Czech Republic

## CO-AUTHORED PUBLICATIONS<sup>2</sup>

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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](#).

## CONFERENCES/WORKSHOPS/SEMINARS

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**Group Seminar** *Mar. 2025*

School of Astronomy and Space Science, NJU, China

**Group Seminar** *Mar. 2025*

Department of Astronomy, ZJU, China

**Group Seminar** *Feb. 2025*

Shanghai Astronomical Observatory, CAS, China

**Group Seminar** *Dec. 2024*

School of Astronomy and Space Science, NJU, China

**Group Seminar** *Oct. 2024*

Center for Astrophysics, Harvard, USA

**EPSC2024** *Sep. 2024*

Berlin, Germany

**Group Seminar** *Sep. 2024*

National Astronomical Observatory of Japan, Japan

**Visitor Talk** *Sep. 2024*

Earth-Life Science Institute, Tokyo Tech, Japan

**Group seminar** *Sep. 2024*

Department of Earth and planetary science, UTokyo, Japan

**Group seminar** *Aug. 2024*

Department of Space and Planetary Sciences, Sun Yat-Sen University, China

**Group seminar** *Aug. 2024*

Department of Earth and space sciences, SUSTech, China

**Dynamics and physics in the solar system** *Jun. 2024*

University of Pisa, Pisa, Italy

**HERA International Workshop 2024** *Apr. 2024*

ESTEC, Noordwijk, Netherland

**Winter School on small bodies in the Solar System** *Feb. 2024*

Ecole de Physique des Houches, Les Houches, France

**HERA International Workshop 2023** *Oct. 2023*

ESTEC, Noordwijk, Netherland

**4th Workshop on Thermal Models for Planetary Science** *Apr. 2023*

ESTEC, Noordwijk, Netherland	
<b>Workshop on applications of radar instruments in planetary science</b>	<i>Jan. 2023</i>
Beijing, China (online)	
<b>EPSC Meeting 2022</b>	<i>Sep. 2022</i>
Granada, Spain	
<b>HERA International Workshop 2022</b>	<i>May. 2022</i>
Nice, France	
<b>EPSC-DPS Joint Meeting 2019</b>	<i>Sep. 2019</i>
Geneva, Switzerland	
<b>International Symposium on Asteroids and Comets Gravity and Interiors</b>	<i>Dec. 2018</i>
China	

## AWARDS

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

## PROFESSIONAL SERVICE

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

## TEACHING EXPERIENCE

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

## STUDENT MENTORING

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<b>Bonny Y. Wang (Master student)</b>	<i>2023</i>
Center for Computational Astrophysics, New York, USA	
<i>Project: Identifying the gap in the rotation distribution of asteroids by the machine learning method</i>	