

# Rimpei Chiba

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## EMPLOYMENT

2025 - 2028 **JSPS Postdoctoral Fellow**, University of Tokyo  
2022 - 2025 **CITA Postdoctoral Fellow**, University of Toronto

## EDUCATION

2018 - 2022 *D.Phil. in Theoretical Physics*, University of Oxford  
2016 - 2018 *M.Sc. in Physics*, Tokyo Institute of Technology & TU Wien  
2012 - 2016 *B.Sc. in Aerospace Engineering*, Tokyo Institute of Technology

## PUBLICATION

- [8] **Chiba R.**, Ding J., Hamilton C., Kunz M. W., Tremaine S., Galactic echoes, arXiv:2505.16512, (2025)
- [7] **Chiba R.**, Frankel N., Hamilton C., Origin of the two-armed vertical phase-spiral in the inner Galactic disk, arXiv:2503.20869, (2025)
- [6] **Chiba R.**, Kataria S. K., Origin of reduced dynamical friction by dark matter halos with net prograde rotation, Mon. Not. R. Astron. Soc., 528, 4115-4124 (2024)
- [5] **Chiba R.**, Dynamical friction and feedback on galactic bars in the general fast-slow regime, Mon. Not. R. Astron. Soc., 525, 3576-3596 (2023)
- [4] **Chiba R.**, Schönrich R., Oscillating dynamical friction on galactic bars by trapped dark matter, Mon. Not. R. Astron. Soc., 513, 768-787 (2022)
- [3] **Chiba R.**, Schönrich R., Tree-ring structure of Galactic bar resonance, Mon. Not. R. Astron. Soc., 505, 2412-2426 (2021)
- [2] **Chiba R.**, Jennifer F., Schönrich R., Resonance sweeping by a decelerating Galactic bar, Mon. Not. R. Astron. Soc., 500, 4710-4729 (2021)
- [1] **Chiba R.**, Ishikawa Y., Hasegawa J., Horioka K., Time evolution of laser-ablation plumes and induced shock waves in low-pressure gas, American Institute of Physics, Physics of Plasmas, 24, 063520 (2017)

## SCHOLARSHIPS AND AWARDS

2025 - 2028 **JSPS Postdoctoral Fellowship**  
2022 - 2025 **CITA Postdoctoral Fellowship**  
2018 - 2022 **Takenaka Scholarship** for overseas studies  
2018 **Best Master Thesis Award** (Tokyo Institute of Technology)  
2017 **Young Poster Award** (International Astronomical Union, Symposium 335)  
2016 - 2017 **Tobitate Scholarship** (Japan Young Ambassador Program)

## SCIENTIFIC PRESENTATION

02/2025 Talk, Como Lake centre for AstroPhysics, Colloquium (Como, Italy)  
01/2025 Talk, Conference IASTrophysical Waves (Princeton, US)  
09/2024 Talk, Nanjing University, Astrophysics seminar (Nanjing, China)  
09/2024 Talk, Conference “Waves in the Milky Way Disk” (Shanghai, China)  
06/2024 Blackboard Talk, KITP Program “Interconnections between the Physics of Plasmas and Self-gravitating Systems” (Santa Barbara, US)  
01/2024 Talk, Shanghai Jiao Tong University, Astronomy seminar (Shanghai, China)  
09/2023 Talk, Institute for Advanced Study, Astrophysics seminar (Princeton, US)  
07/2023 Poster, Galactic bars: driving and decoding galaxy evolution (Granada, Spain)  
06/2023 Talk, Canadian Astronomical Society, Annual meeting (Penticton, Canada)  
12/2022 Talk, CITA seminar (Toronto, Canada)  
11/2022 Talk, University of Leicester, Astrophysics seminar (Leicester, UK)  
01/2022 Talk, University College London, MSSL seminar (London, UK)  
07/2021 Talk, National Astronomy Meeting (Bath, UK)  
02/2021 Talk, University of Oxford, Galaxy Journal Club seminar (Oxford, UK)  
07/2020 Talk, European Astronomical Society, Annual meeting (Leiden, Sweden)  
12/2019 Talk, University of Surrey, Milky Way Local Group seminar, (Surrey, UK)  
09/2017 Talk, The Physical Society of Japan, Annual meeting (Iwate, Japan)  
07/2017 Poster, International Astronomical Union, Symposium 335 (Exeter, UK)  
04/2017 Poster, European Geoscience Union, General Assembly (Vienna, Austria)  
01/2016 Talk, National Institute of Fusion Science, Conference (Gifu, Japan)

## ACADEMIC SERVICES

2022 - 2025 CITA blackboard seminar, organizer  
Review: Monthly Notices of the Royal Astronomical Society, Astronomy & Astrophysics, Astrophysical Journal

## SKILLS

Computing: C/C++, python, MPI, OpenMP  
Language: Japanese (native), English (fluent)

## REFERENCES

- **Ralph Schönrich**  
Mullard Space Science Laboratory, University College London  
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- **John Magorrian**  
Rudolf Peierls Centre for Theoretical Physics, University of Oxford  
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- **James Binney**  
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- **Peter Martin**  
Canadian Institute for Theoretical Astrophysics, University of Toronto  
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- **Michiko Fujii**  
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