

SHINNOSUKE SATOH

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Present Position

April 2025 – Present: Visiting Ph.D. student, Laboratoire d'Astrophysique de Marseille, Marseille, France

April 2024 – Present: Ph.D. candidate, Planetary Plasma and Atmospheric Research Center, Graduate School of Science, Tohoku University, Miyagi, Japan

April 2022 – Present: Research assistant, WISE Program for Sustainability in the Dynamic Earth, Tohoku University, Miyagi, Japan

Education

March 2022: Bachelor of Science, Geophysics, Faculty of Science, Tohoku University

March 2024: Master of Science, Department of Geophysics, Graduate School of Science, Tohoku University

Research Interests

- Ultraviolet aurorae in planetary atmosphere.
- Planetary magnetic fields and planetary magnetospheres.

Honors

- March 2022: Tohoku University President Award
- March 2021: Tohoku University Aoba Society for the Promotion of Science Award

Professional Societies

- Society of Geomagnetism and Earth, Planetary and Space Sciences
- Magnetospheres of Outer Planets

Publications

Number of 1st author papers: **3**

1. **Satoh, S.**, Tsuchiya, F., Sakai, S., Kasaba, Y., Yasuda, R., & Kimura, T. (2023). Interpretation of the North-South Asymmetric Oxygen Aurora Morphology on Europa Using Test Particle Simulation. *Journal of Geophysical Research: Space Physics*, 128, e2023JA031519. <https://doi.org/10.1029/2023JA031519>
2. Yasuda, R., Kimura, T., Misawa, H., Tsuchiya, F., Cecconi, B., Kasaba, Y., **Satoh, S.**, Sakai, S., & Louis, C. K., (2024). Ray Tracing for Jupiter's Icy Moon Ionospheric Occultation of Jovian Auroral Radio Sources. *Journal of Geophysical Research: Space Physics*, 129, e2024JA032454. <https://doi.org/10.1029/2024JA032454>
3. **Satoh, S.**, Tsuchiya, F., Sakai, S., Kasaba, Y., Nichols, J. D., Kimura, T., Yasuda, R., & Hue, V. (2024). Changes in the plasma sheet conditions at Europa's orbit retrieved from lead angle of the satellite auroral footprints. *Geophysical Research Letters*, 51, e2024GL110079. <https://doi.org/10.1029/2024GL110079>
4. Kondo, H., Tsuchiya, F., Kagitani, M., **Satoh, S.**, Misawa, H., Nakamura, Y., Murakami, G., Kimura, T., Yamazaki, A., Yoshikawa, I., Kita, H., & Tao, C. (2024). Solar wind response of the dawn-dusk asymmetry in the Io plasma torus using the Haleakala T60 and HISAKI satellite observations. *Journal of Geophysical Research: Space Physics*, 129, e2024JA032840. <https://doi.org/10.1029/2024JA032840>
5. **Satoh, S.**, Hue, V., Tsuchiya, F., Sakai, S., Kasaba, Y., Kita, H., Kagitani, M., Moirano, A., Bonfond, B., Misawa, H., and Yasuda, R. (2026). Dawn-Dusk Asymmetry of the Io Plasma Torus Derived from Io's Auroral Footprints Observed by Juno-UVS. *The Planetary Science Journal*, 7, 34. <https://doi.org/10.3847/PSJ/ae3678>