

Peer-reviewed papers:

More than 50 first author papers published by 2023 (H-index = 32, >4000 citations).

• **2023 (first author 3 + coauthor 8)**

Kataoka, R., A. Nakamizo, S. Nakano, and S. Fujita (2023b), Machine learning-based emulator for physics-based simulation of auroral current system, *Space Weather*, accepted, 2023SW003720.

Kataoka, R., S. Nakano, and S. Fujita (2023a), Machine learning emulator for physics-based prediction of ionospheric potential response to solar wind variations, *Earth, Planets and Space* 2023 75:139, <https://doi.org/10.1186/s40623-023-01896-3>.

Kataoka, R. (2023), The Clustering Occurrence of “Red Sign” Auroral Events in Japanese History, *Studies in Japanese Literature and Culture*, 6, 119-143, <http://id.nii.ac.jp/1283/00004724/>.

Murase, K., R. Kataoka, T. Nishiyama, K. Sato, M. Tsutsumi, Y. Tanaka, Y. Ogawa, and T. Sato (2023), Atmospheric ionizations by solar X-rays, solar protons, and radiation belt electrons in September 2017 space weather event, *Space Weather*, accepted, 2023SW003651.

Nakamura, Y., Leblanc, F., Terada, N., Hiruba, S., Murata, I., Nakagawa, H., et al. (2023). Numerical prediction of changes in atmospheric chemical compositions during a solar energetic particle event on Mars. *Journal of Geophysical Research: Space Physics*, 128, e2022JA031250. <https://doi.org/10.1029/2022JA031250>

Nakano, S., R. Kataoka, M. Nose, and J. W. Gjerloev (2023), Probabilistic modelling of substorm occurrences with an echo state network, *Ann. Geophys.*, 41, 529-539, <https://doi.org/10.5194/angeo-41-529-2023>

Adriani O. et al. (CALET Collaboration) (2023) Direct Measurement of the Spectral Structure of Cosmic-Ray Electrons + Positrons in the TeV Region with CALET on the International Space Station, *Phys. Rev. Lett.* 131, 191001.

Adriani O. et al. (CALET Collaboration) (2023), Charge-Sign Dependent Cosmic-Ray Modulation Observed with the Calorimetric Electron Telescope on the International Space Station, *Phys. Rev. Lett.* 130, 211001. DOI : 10.1103/PhysRevLett.130.211001

Hosokawa, K., Oyama, S.-I., Ogawa, Y., Miyoshi, Y., Kurita, S., Teramoto, M., et al. (2023). A ground-based instrument suite for integrated high-time resolution measurements of pulsating aurora with Arase. *Journal of Geophysical Research: Space Physics*, 128, e2023JA031527. <https://doi.org/10.1029/2023JA031527>

Tanaka, T., Ebihara, Y., Watanabe, M., Fujita, S., & Kataoka, R. (2023). Radial transport of Io plasma from the inner magnetosphere to the tail. *Journal of Geophysical Research: Space Physics*, 128, e2022JA030891. <https://doi.org/10.1029/2022JA030891>

Miyahara, H., K. Kusano, R. Kataoka, Shin-Ichiro Shima, and E. Toubert (2023), Response of high-

altitude clouds to the galactic cosmic ray cycles in tropical regions CR cloud, *Frontiers in Earth Science*, DOI: 10.3389/feart.2023.1157753.

• **2022 (first author 3 + coauthor 12)**

Kataoka, R., D. Shiota, H. Fujiwara, H. Jin, C. Tao, H. Shinagawa, and Y. Miyoshi (2022), Unexpected space weather causing the reentry of 38 Starlink satellites in February 2022, *J. Space Weather and Space Climate*, 12, 41, <https://doi.org/10.1051/swsc/2022034>.

Kataoka, R., T. Sato, C. Kato, A. Kadokura, M. Kozai, S. Miyake, K. Murase, L. Yoshida, Y. Tomikawa, and K. Munakata (2022), Local environmental effects on cosmic ray observations at Syowa Station in the Antarctic: PARMA-based snow cover correction for neutrons and machine learning approach for neutrons and muons, *J. Space Weather Space Clim.*, Volume 12, 37, <https://doi.org/10.1051/swsc/2022033>.

Kataoka, R., S. D. Winn, and E. Toubert (2022), Meteotsunamis in Japan associated with the Tonga Eruption in January 2022, *SOLA*, 18, 116-121, <https://doi.org/10.2151/sola.2022-019>.

Adriani O., et al. (CALET Collaboration), Cosmic-Ray Boron Flux Measured from 8.4 GeV/n to 3.8 TeV/n with the Calorimetric Electron Telescope on the International Space Station, *Phys. Rev. Lett.* 129, 251103, <https://doi.org/10.1103/PhysRevLett.129.251103>.

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Adriani et al. (2022), Observation of spectral structures in the flux of cosmic-ray protons from 50 GeV to 60 TeV with CALET on the ISS, *PRL*, DOI: 10.1103/PhysRevLett.129.101102.

Ozaki, M., Shiokawa, K., Kataoka, R. et al. Localized mesospheric ozone destruction corresponding to isolated proton aurora coming from Earth's radiation belt. *Sci Rep* 12, 16300 (2022). <https://doi.org/10.1038/s41598-022-20548-2>.

Adriani et al. (2022), CALET Search for Electromagnetic Counterparts of Gravitational Waves during the LIGO/Virgo O3 Run, *ApJ* 933 85.

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Murase K., et al. (2022), Mesospheric ionization during substorm growth phase, *J. Space Weather Space Clim.*, Volume 12, 18, <https://doi.org/10.1051/swsc/2022012>.

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- Kataoka, R., and S. Nakano (2021), Reconstructing solar wind profiles associated with extreme magnetic storms: A machine learning approach, *Geophysical Research Letters*, 48, e2021GL096275. <https://doi.org/10.1029/2021GL096275>.
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- **2019 (first author 2 + coauthor 10)**
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• **2016 (first author 4 + coauthor 10)**

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