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Research fields

Physics

- Cosmic ray physics
- Space Weather

Key Words

Cosmic Rays
Solar Wind
CME
Magnetic Storm

Subject of research on Data Science :

Analyzing transient and long-term variations in cosmic ray intensity using time-series cosmic ray counting rate data

1. W. Mitthumsiri, ..., C. Kato, ..., Ground-based Observations of Temporal Variation of the Cosmic-Ray Spectrum during Forbush Decreases. ApJ, 986(1):L7, June 2025.
2. H. Tsuchiya, ..., C. Kato, ..., Characteristics of temporal variability of long-duration bursts of high-energy radiation associated with thunderclouds on the Tibetan plateau. Progress in Earth and Planetary Science, 11(1):26, December 2024.
3. M. Kozai, ..., C. Kato, ..., Cosmic-Ray North–South Anisotropy: Rigidity Spectrum and Solar Cycle Variations Observed by Ground-based Muon Detectors. ApJ, 977(2):160, December 2024.
4. K. Munakata, ..., C. Kato, ..., Global Analysis of the Extended Decreases in Cosmic Rays Observed with Worldwide Networks of Neutron Monitors and Muon Detectors: Temporal Variation of the Rigidity Spectrum and Its Implication. ApJ, 974(2):283, October 2024.
5. R. Kataoka, ..., C. Kato, ..., 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. Journal of Space Weather and Space Climate, 12:37, October 2022.
6. K. Munakata, M. Kozai, C. Kato, ..., Large-amplitude Bidirectional Anisotropy of Cosmic-Ray Intensity Observed with Worldwide Networks of Ground-based Neutron Monitors and Muon Detectors in 2021 November. ApJ, 938(1):30, October 2022.
7. M. Kozai, ..., C. Kato, ..., Statistical investigation of the large-area Si(Li) detectors mass-produced for the GAPS experiment. Nuclear Instruments and Methods in Physics Research A, 1034:166820, July 2022.