

High-energy radiation and atmospheric electric field that are observed at Mt. Fuji

SAITO, Shogen^{1*} ; SHOJI, Tomomi¹ ; KAMOGAWA, Masashi¹ ; TORII, Tatsuo²

¹Dpt. of Phys., Tokyo Gakugei Univ., ²Japan Atomic Energy Agency

Energetic radiation caused by the lightning activity is expected to be due to "Relativistic Runaway Electron Avalanche (RREA)". In RREA process, high-energy cosmic-ray collision with the atmospheric molecules produces secondary products. Because of pair annihilation and bremsstrahlung in the electric field inside the thunderstorm, gamma-ray is emitted. In this study, we would like to verify the RREA process by using the observed data of the atmospheric electric field and gamma rays measured at Mt. Fuji.

Keywords: Thunderstorm, Gamma ray, Mt. Fuji