

Relationship between auroral curl/spiral and particle precipitation: Reimei observation

Kentaro Iwai¹, TAKADA, Taku^{1*}, ASAMURA, Kazushi², SAKANOI, Takeshi³, YAMAZAKI, Atsushi²

¹Kochi National College of Technology, ²JAXA/ISAS, ³PPARC, Tohoku University

One of the most attracted properties of the aurora is its wave-like structures and the various scales of its wave structures are observed, such as an auroral curl or spiral. In this study, we focused on the precipitated particle behaviors when the aurora curl or spirals are observed at its footprint. Statistical analysis, using Reimei observations, shows that the inverted-V structures, low-energy electron dispersion, and plasma sheet electron precipitations are closely associated with the well-developed auroral wave structures.