れいめい衛星観測による2次元オーロラ構造と降り込み粒子の関係

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Relationship between auroral 2D structures and particle precipitation: Remei observation

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One of the most attracted properties of the aurora is its wave-like structures: the scale of the wave structures and the growth of the waves are varied in each event. In this study, we focused on the precipitated particle behaviors, corresponding to the 2D auroral structures at the spacecraft's 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.