

R006-21

Zoom meeting B : 11/1 PM2 (15:45-18:15)

17:00~17:15

コーラスの伝搬特性と脈動オーロラ-マイクロバースト降り込み電子の関係

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Energy spectrum of microburst electron precipitations

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Both pulsating aurora electrons and sub-relativistic/relativistic electron microbursts are burst electron precipitations within 1 second from the magnetosphere to the thermosphere and mesosphere. Recently, we have proposed the theory that relativistic electron microbursts are a high-energy tail of pulsating aurora by chorus waves propagating along the field lines. The theory has been confirmed by several conjunction observations between low-altitude satellites and ground-based observations. The theory predicts that the energy spectrum electron bursts depend on the propagation latitudes of chorus waves. In this study, we conduct the computer simulations to investigate how the propagation latitudes of the chorus waves control the energy spectrum of precipitating electrons, and we discuss the possible conditions to cause relativistic electron microbursts associated with the pulsating aurora.