

Electrons distribution functions in auroral particle acceleration region

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In the auroral particle acceleration region, particle detector often observes a significant amount of electron population in a phase space region, which is considered as "inhibit region" from a time stationary adiabatic theory. Their presence may be interpreted in terms of variable potential differences in space and time. This distribution pattern may occur rapidly in comparison with the time resolution of the instruments. However, such electron distribution often observed stationary. Using the Akebono satellite data statistically, we will discuss the distribution of the acceleration region in space and time.

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