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## **Small Scale Structuring in Electron Precipitation as seen by the ePOP Suprathermal Electron Imager**

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Auroral arcs are known to be caused by electrons with keV energies interacting with the neutral atmosphere. However, there is much more to the aurora than auroral arcs. There is a wide range of phenomena that are grouped together as “diffuse aurora”. Suprathermal electron precipitation (having energies between 1 eV and a keV) often contributes to the diffuse aurora. Much less is known about suprathermal electron precipitation than the higher energy precipitation. The ePOP Suprathermal Electron Imager (SEI), a high-time-resolution CCD-based detector capable of imaging electron velocity distributions, is currently being used to survey this type of precipitation. We will present observations of dispersed electron busts, where a burst of electron precipitation is dispersed over the distance from source to detector. We will also present observations of “inverse” electron dispersion, in which a low energy population of electrons increases in energy over time. This has not been reported in literature before. We present a simple model that could explain this phenomenon, and results from a simple simulation of it.

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