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**Title:** Boundaries and Structures in the Diffuse Aurora

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**Title:**

Boundaries and Structures in the Diffuse Aurora

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**Abstract:**

Diffuse aurora provide a window into the magnetospheric wave-particle interactions that lead to precipitation of energetic particles and determine the dynamics of the Earth's radiation belts and potentially the distribution of cold plasma. Ground-based camera networks provide a wealth of data that can be used to answer key questions about the role of cold plasma in magnetospheric dynamics and transport/loss/energization of higher energy particles. Future expansion of the ground-based observatory network will be key to future cold plasma missions such as IMPACT.