

What is the role of repeatable meso-scale processes in the Magnetosphere-Ionosphere system?

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Profound mysteries exist about how the Earth's magnetosphere and ionosphere (M-I) interact and generate the dynamic and structured auroras. Scattered throughout the auroras are recurrent auroral forms (tens to hundreds of km) but their role in the M-I system remains unknown. Such features are likely manifestations of energy and momentum transport within the M-I system. Shortcomings in our understanding of these recurrent forms are largely due to observational challenges arising from their complex structure and dynamic variability. These characteristics present a difficult observational challenge which require multipoint, multivariate measurements with appropriate spacing in time and space.

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