



Spatial fine-structure in the F-region polar ionosphere

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Throughout the last decade we have carried out a several campaigns involving the EISCAT Svalbard Radar. Using a combination of fast azimuth and elevation scans we have detected a series of meso-scale features in the F-region polar ionosphere, including meso-scale flow channel events and polar cap patches of enhanced electron density. We have found examples of extreme plasma density being transported all the way across the polar cap. We have also studied the growth of F-region plasma irregularities. In this talk we review some of our findings.