

THEMIS MULTI-POINT OBSERVATIONS OF FLUX ROPES AND TRAVELLING COMPRESSION REGIONS: FIRST TAIL SEASON RESULTS

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The first tail season of the THEMIS mission provides rare opportunities for observations of flux rope and travelling compression region (TCR) development and transport at multiple points in the Earth's magnetotail. The two most distant THEMIS spacecraft are used to observe, for the first time, flux ropes at one location embedded in plasma sheet flows producing TCRs at another satellite. The unique alignment of the THEMIS probes enables a comparison of the flux rope speed determined from inter-spacecraft timing with in situ plasma measurements. Flux rope orientation, dimensions and temporal evolution inferred from these multi-point measurements will be presented.

flux rope, THEMIS

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