



Cassini observations of plasmoids and travelling compression regions in Saturn's magnetotail in 2006.

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We present observations and statistics of more than 50 reconnection signatures in Saturn's magnetotail during 2006, when the Cassini spacecraft was orbiting near the equatorial plane at radial distances out to 68 RS. We see examples of both direct plasmoid encounters, as well as larger scale travelling compression regions (TCRs) which surround plasmoids as they move down the tail. Some events are isolated, whereas others occur in quick succession, suggesting that multiple plasmoids are often produced by a single reconnection episode in Saturn's magnetotail as is the case at Earth. We discuss the role of these reconnection events in cycling magnetic flux in Saturn's magnetosphere. We present statistics on the amplitude and duration of these events, and comment on the evolution of such structures with increasing radial distance down the tail.