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A cluster investigation of a fast flow event in the magnetotail 25 august 2002

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High speed Earthward plasma flows, frequently observed in the plasmasheet, may carry large amounts of mass and energy to be deposited in the near-Earth environment. The Cluster Ion Spectrometry (CIS) instrument is well suited to study these fast flows. We have analysed a case from 25 Aug 2002, between 21 and 22 UT, when the Cluster satellites were deep in the plasma sheet about 19 R_E away from the Earth. In this interval, many high speed Earthward plasma flows were observed. We use plasma beta (thermal pressure divided by magnetic pressure) to determine the location of these fast flows and try to reconstruct the magnetic field configuration using magnetic field measurements and a Harris sheet modell. We also present a plasmoide like structure apparently moving towards the Earth.