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Double Star, Cluster, and ground-based observations of magnetic reconnection during an interval of duskward oriented IMF: preliminary results

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We present the first space- and ground-based study exploiting data from the coordinated Cluster and Double Star missions, in order to investigate dayside magnetic reconnection under B_Y+ dominated IMF conditions. In-situ observations of magnetosheath flux transfer events combined with measurements of pulsed poleward and dawnward directed flows in the pre-noon sector high-latitude northern hemisphere ionosphere are interpreted as indications of pulsed magnetic reconnection during an interval in which the IMF remained relatively steady. Observations of newly-reconnected magnetic flux tubes both at mid-latitudes and in the vicinity of the subsolar point suggests that during B_Y+ dominated IMF, reconnection is not, as proposed previously, limited to the high-latitude magnetopause.