

The geomagnetic storm on September 2000: a clue to Sun-Earth interaction

E. Saiz, Y. Cerrato and C. Cid

Departamento de Física. Universidad de Alcalá, Spain (elena.saiz@uah.es)

Reconnection is assumed as the most efficient physical mechanism involved in geomagnetic activity. Then, an intense southern and long duration interplanetary magnetic field provides to terrestrial magnetosphere energy enough to produce a geomagnetic storm event. In this work we analyze the event on September 2000, where Dst index reaches -201 nT at 0 hours of doy 262. Theoretical models based on reconnection forecast a peak for that storm which almost reaches -100nT. Looking for other features in experimental data that could explain this discrepancy in the results, we have analyzed every component of interplanetary magnetic field and solar wind velocity. Our results are presented in this communication.