



Geomagnetic storm - time variations in the South Atlantic Anomaly region

E. F. Berra (1,3), E. Frigo (1,3), E. Andrighetto (1,3), C. E. Antunes (1,3), N. B. Trivedi(2,4), S. L. G. Dutra (2), N. J. Schuch(3)

(1) Space Science Laboratory of Santa Maria, Santa Maria, RS, Brazil, (2) National Institute for Space Research, São José dos Campos, SP, Brazil, (3) Southern Regional Space Research Center, Santa Maria, RS, Brazil, (4) Partnership FURNAS/FATEC, Santa Maria, RS, Brazil
(efb@lacesm.ufsm.br) / Fax: +55-55-2208021

Geomagnetic variations in the horizontal components H (North-South) and D (East-West) during the large geomagnetic storm of 7 to 10 November 2004 are studied from the data collected at the stations São Martinho da Serra – SMS (29.43° S, 53.82° W and 33° dip) and Vassouras – VSS (22.40°S, 43.65° W and 33° dip). We have observed small amplitude differences in the H variations and larger amplitude differences in the D variations between the two stations. We observed intense pulsation activity from 16:40 UT to 06:00 UT on 7-8 November 2004 and from 18:40 UT to 04:40 UT on 9-10 November 2004. We subjected the H and D data for these two intervals of time to a spectrum analysis and computed polarization parameters of the pulsations. The results are presented and discussed. An attempt is made to explain the results due to the large differences of declination values at the two stations and also the presence of South Atlantic Magnetic Anomaly.