Geophysical Research Abstracts, Vol. 8, 05640, 2006
SRef-ID: 1607-7962/gra/EGU06-A-05640

The INGV tectonomagnetic network: 2004-2005 whole dataset

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It is well established that earthquakes and volcanic eruption can produce significant variation in the geomagnetic field. The Italian Istituto Nazionale di Geofisica e Vulcanologia (INGV) tectonomagnetic network was installed in central Italy since the middle of 1989 to investigate possible seismomagnetic effects related to earthquakes occurrences. Geomagnetic total field intensity data are detected in four stations, including the L'Aquila Geomagnetic Observatory (42° 23' N, 13° 19'E 682m a.s.l.), using proton precession magnetometers. We report the complete dataset analysis for period of years 2004-2005. The data of each station are differentiated respect to the data of the other stations in order to detect local field anomalies removing the contributions from the other sources, external and internal to the Earth. The results of the data analysis are also correlated with the seismic activity recorded in central Italy by the Italian Seismic National Network to show some relations between magnetic signal and local seismic activities.