

A GEOMAGNETIC REFERENCE MODEL FOR ALBANIA, SOUTH-EAST ITALY AND IONIAN SEA FROM 1990 TO 2008 WITH PREDICTION TO 2010

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Here we present a revised geomagnetic reference model for the region comprising Albanian territory, south-east part of Italian Peninsula and Ionian Sea from 1988 to 2008 with prediction to 2010. This study is based on the datasets of magnetic measurements from 1988 to now taken during different campaigns in Albania and Italy, together with a total intensity data set from the Ørsted, CHAMP and SAC-C satellite missions. The model is designed to represent the Cartesian components, X,Y,Z, and the total intensity F of the main geomagnetic field (and its secular variation) for the period of interest. To develop the model we applied a spherical cap harmonic analysis of the geomagnetic potential over 8° cap, which provides as a better representation of the magnetic field in the considered region in comparison with the International Geomagnetic Reference Field (IGRF). The model can be used as a reference model to reduce magnetic surveys undertaken in the area during the time of validity of the model, or to extrapolate the field till 2010.

Geomagnetic Field, Regional Models

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