Geophysical Research Abstracts Vol. 19, EGU2017-8650, 2017 EGU General Assembly 2017 © Author(s) 2017. CC Attribution 3.0 License.



On the recovery of electric currents in the liquid core of the Earth

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Inverse geodynamo modelling has become a standard method to get a more accurate image of the processes within the outer core. In this poster excerpts from the preliminary results of an other approach are presented. This comes around the possibility of recovering the currents within the liquid core directly, using Main Magnetic Field data. The approximation of different systems of the flow of charge is possible with various geometries. Based on previous geodynamo simulations, current coils can furnish a good initial geometry for such an estimation. The presentation introduces our preliminary test results and the study of reliability of the applied inversion algorithm for different numbers of coils, distributed in a grid simbolysing the domain between the inner-core and core-mantle boundaries. We shall also present inverted current structures using Main Field model data.