



Some remarks on the detection of simple magnetic sources

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The localization of sources of different signals and the determination of their properties is an important general type of inverse problems, having several possible applications in earth sciences. In this paper, efficiency of a combined inversion algorithm in determining properties of current loop sources producing a given magnetic field was tested on synthetic data under different conditions, and preliminary results are presented. One important aspect of this theoretical and numerical experimentation is that it could possibly yield a somewhat novel approach to the practical problem of describing the large-scale source structure of the Earth's main magnetic field, the large magnetic anomalies, and constrain the fast developing geodynamo simulations.