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Potential Geophysical Field Modeling as a Power Tool of the Earth Knowledge

Guest Editor:

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Message from the Guest Editor

Potential geophysical fields—gravity, magnetic and thermal-are now recognized as powerful instruments for studying the deep structure of the Earth. For all three fields, giant data arrays were accomplished (many tens of millions). The datasets began to increase with the development of different satellite missions (for gravity and magnetics). The developed methodology of retracking satellite gravity data to the sea surface and rugged land topography opens new horizons for gravity data processing and transformation. The enormous amounts of thermal data determined from deep and middle boreholes enable to image thermal regimes at these depths and to continue these calculations further down. Interactive gravitymagnetic, as well as thermal modelling, allow to constructing deep physical-geological models and correlate them with seismic, magnetotelluric, and other data.....

Both single potential geophysical modeling and, especially, their different integrations are welcome.



