Nonlinear gravity inversion across faults by direct search methods - A Case Study

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In this preliminary, we investigate the structure of the Earth Crust by application of direct search methods, which are robust and capable of wide application(s). The region in consideration lies in Central Japan, which has several tectonic/fault lines, related to the interaction of the Eurasian (EURA), North American (NOAM), Pacific and the Philippine (PHS) plates. Two-dimensional (2D) models are given across the faults at different longitudes and/or latitudes to depict the sub-surface structure.