Algorithms for optimising 2-D gravity and magnetic modelling

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A program is described which performs rapid and efficient computation 2-D model fields for comparison with measured gravity or magnetic profiles. The novel features of the program are mostly located in an editing procedure which recalculates the model fields as changes are made to the models in an iterative approach to producing a best-fil model. Various algorithms are dedicated to reducing memory requirements, increasing computational speed, or providing greater ease of altering the model parameters. The editing procedure and its interactive design with the graphics display makes the modelling process more convenient, faster, and capable of dealing with more complex geological models.

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