A versatile Turbo-Pascal program for optimization of magnetic anomalies caused by two-dimensional dike, prism, or slope models

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Abstract
A Turbo-Pascal program for automatic interpretation of magnetic anomalies caused by a dike, prism, or buried slope model of infinite strike length is presented. The residual between the observed and the calculated anomalies is minimized by adjusting the model parameters automatically. The change in model parameters is determined by decomposing the matrix of partial derivatives into singular values using a compact algorithm.

Keywords
Optimization;
Total magnetic field;
Dike;
Prism;
Buried slope;
Singular values;
Least squares