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Analysis of vector geomagnetic anomaly data using Genetic Algorithm

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We propose a new analysis method of vector geomagnetic anomaly data for calculation to solve boundary's position, strike and magnetization using 2.5 dimensional magnetic structure, in which each magnetic boundary has 2-dimensional structure but has individual strike. One strong feature in this method is to adopt Genetic Algorithm to obtain 3 different types of model parameters at all once. It works effectively against local convergence solution. Another feature is to treat one survey track line of anomaly profile figure in whole per one calculation, which way consistent with the fact that an observational anomaly profile integrates magnetic boundaries along the track. Such model and method fulfill a great interest in more precise and fine scale tectonics evolution.