Geosci. Instrum. Method. Data Syst. Discuss.,
https://doi.org/10.5194/gi-2017-39-RC3, 2018

Geoscientific Instrumentation Methods and Data Systems Discussions

Interactive comment on "2D dipping dike magnetic data interpretation using a robust particle swarm optimization" *by* Khalid S. Essa and Mahmoud El-Hussein

Anonymous Referee #2

Received and published: 5 April 2018

Dear authors,

1. why do you use the objective function of expression (4), which is written as the absolute value formation? Usually, the l2 normal objective function is used in potential field data inversion.

2. Unit of magnetic anomaly is nT (not mA/m). Please make clear the magnetic induction intensity, magnetic field strength, magnetization and susceptibility. Magnetization usually is written as M (not K).

3. Please show the inverted dike models in Figure 6, Figure 7. Also show the true and inverted models in figures of synthetic examples.

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Discussion paper

4. The symbols of observed data and predicted data are not clear to distinguish. Please use color symbols or lines.

5. Title “Parametric inversion of magnetic model for 2D dipping dike model using particle swarm optimization”.

6- Could you investigate the effect of a regional background field on the inversion results?

Kind Regards,

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