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Geoscientific Instrumentation Methods and Data Systems Discussions

Interactive comment on "Appraisal on inversion algorithm techniques in 2D electrical resistivity tomography survey data for poised mapping of subsurface features" *by* Abhay Kumar Bharti et al.

Anonymous Referee #1

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Authors try to compare the efficacy of two inversion approaches already available within the software package of RES2DINV (Loke and Barker 1996; Loke 1999). However, similar studies are already available in literature by the developer of the software (e.g., Loke et al., 2001; 2003). Thus, it was very hard to understand the importance and/or novelty of this work. Neither these aspects (including importance and objectives) have been mentioned in the introduction nor discussed anywhere in the manuscript. Also, the overall write up of the manuscript is VERY poor. Many places, I found continuities are missing, sentences are not proper, and meaning is incomplete. As a result, it is hard to follow the manuscript. Author should focus toward presenting a work dealing with enhancement of the technique or as comparison with

some global optimization techniques clearly highlighting the requirement/importance of the work or application of the existing methods on data from a new area as a new case study. I have mentioned some of these issues along with few technical points in the annotated pdf file as attached herewith. Hope these will be useful in improving the quality of the manuscript for future. Based on my observations, I suggest for Rejection of the manuscript.

Please also note the supplement to this comment:
https://gi.copernicus.org/preprints/gi-2020-25/gi-2020-25-RC1-supplement.pdf

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