Interactive comment on "Application of particle swarm optimization for gravity inversion of 2.5-D sedimentary basins using variable density contrast" *by* Kunal Kishore Singh and Upendra Kumar Singh

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Received and published: 26 September 2016

I have gone thoroughly the manuscript and found some issue with article which i mentioning below 1. Author has mention in whole Manuscript "2.5 D". What does indicate? 2. Can we use this algorithm for 3D strucutre? 3. As gravity results are non-uniqueness, so confirm the depth of sedimentary basin author should compare his result with the other geophysical technique (published result). 4. As from Figure 4,5,6,7, and 9 i could not make out any difference between the Marquardt and present technique, as author claimed that the present technique gives better result than his technique. 5. Author should explain that how that Gaussian noise effect the synthetic model. 6. In Figure 8, marked the profile which is used for model. 7. All the case

study presented in the article are basin structure. Can we use the technique for layered structure. if so pl so one case study for layered geological structure. 8. English is poor.

Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss., doi:10.5194/gi-2016-10, 2016.