

Interactive comment on “Feasibility of three-dimensional density tomography using dozens of muon radiographies and Filtered BackProjection for volcano” by Shogo Nagahara and Seigo Miyamoto

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First of all, thank you for your careful reading.

Referee Comments: I have a more technical question concerning the role of the a priori inputs one has to bring in the method. It is said that a small amount of a priori information is needed but this sounds not true when one really implements it. For instance, to stabilize the inversion you need to use constraints on the solutions, which correspond to real a priori information. I would like the authors to comment on this and

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to add a discussion paragraph on this item if possible.

Author Response: As stated in line 84, this analysis method is “forward problem analysis”, not “inverse problem analysis”. This analysis method can give results without initial density model. All simulation results are obtained without using a priori information, except for mountain shape data. The analysis method used in this paper can be directly applied to the data when observation is performed with the same setup in the simulation. If this response is different from what you really want to mention about (actually we’re afraid of that), please let us inform.

Thank you and best regards, Nagahara Miyamoto

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