

Interactive comment on “Phase Segmentation of X-Ray Computer Tomography Rock Images using Machine Learning Techniques: an Accuracy and Performance Study” by Swarup Chauhan et al.

Anonymous Referee #2

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Dear authors,

from my point of view your contribution is not significant enough to be published in Solid Earth. The main reason is the only marginal added value to your already published paper "Processing of rock core microtomography images: Using seven different machine learning algorithms" (Computer & Geosciences, 2016). Your statement in the abstract "Therefore, our investigation provides parameters that can help selecting the appropriate machine learning techniques for phase segmentation" is rather vague to support the idea to have another paper to your already published paper.

Moreover, there are other very weak points in the paper:

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- The introduction is too short and will give not a good overview of the topic. Do the authors will really not have a better overview?
 - Other segmentation techniques are not discussed in the manuscript. Maybe they are superior to the discussed seven methods.
 - Nowadays it is a standard to apply several filters in the data processing workflow. They are not mentioned or discussed.
 - The quality of the figures is bad. Partly they are too small too identify details (e.g. Figure 2, 3 or 9) or the labeling is not explained (what is FCM-1_35 in Figure 4 ???)
- In conclusion, the paper is not acceptable in its current form. There are simply too many things to correct.

Interactive comment on Solid Earth Discuss., doi:10.5194/se-2016-44, 2016.

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