

Interactive comment on “Electrical Formation Factor of Clean Sand from Laboratory Measurements and Digital Rock Physics” by Mohammed Ali Garba et al.

Mohammed Ali Garba et al.

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Referee Comment here is just one question, for the small size sub-cubes that maybe anisotropic, how you choose the effective conductivity, just one direction or an average value?

Authors Reply That is an excellent point. Yes, we examined the full tensor of conductivity for the 700^3 samples, and it has been found that the tensor is isotropic within the small relative error. For the small samples, which are smaller than RVE, we took an average of conductivities of different directions, which mathematically is equal to one-third of the trace of conductivity tensor.

Changes in the text We replace the sentence L. 329 to 330 by “In the following, we took an average of the conductivities in the three different directions, which mathematically is equal to one-third of the trace of conductivity tensor; for simplicity, we then consider the conductivity as a scalar number for all images”

Interactive comment on Solid Earth Discuss., <https://doi.org/10.5194/se-2018-133>, 2019.

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