

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

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Referee Comment: difference between FF of rectangular and cylindrical cells,

Referee Comment: different trends between FF and porosity in Figure 9. For example, there are obviously another trends than $FF = \Phi^m E_t(-m)$ in some cases (e.g., Scarborough Beach, flow or Cottesloe Beach, static), but authors insisted on Archie trend. These differences go back to the porous structure of each sample and since the authors have access to it (I mean via segmented images), they should do more extensive work in this part. They can at least calculate pore network model or tortuosity of flow paths of each sample and compare their properties to find reasonable relationships.

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Authors Reply: Please refer now to the discussion that has been highly modified and replies to this comment, especially 2nd paragraph.

Please also note the supplement to this comment:

<https://www.solid-earth-discuss.net/se-2018-133/se-2018-133-AC5-supplement.pdf>

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

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