

Interactive comment on “Study on connectivity mechanism and robustness of three-dimensional pore network of sandstone based on complex network theory” by Guannan Liu et al.

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I don't think the new version of the paper has been significantly improved. The authors did not exhaustively describe the properties of the degree distribution curves, did not test the power-law hypothesis, but simply deleted the section about the description of ER and WS networks, and in the abstract changed the word “scale-free network” with “single-peaked curve”. Actually, the problem of testing if such curves follow or not a power-law still exist and the authors did not provide any explanation of it. In Table 1, several measures of complex networks have been reported, but these measures have not been defined qualitatively and quatically, and this makes difficult for a reader

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who is not familiar with complex network theory to follow the content of the study. The problem of the qualitative analysis of the eigenvector centrality is still present; no quantitative indicator of it has been provided in the revised version. The paper does not in general present a robustness study, as observed by the referee 2. The conclusions are quite weak and do not show how the obtained results could be really useful for the “exploitation of enhancing of the oil and gas recovery”. In summary, the paper in its last version does not seem appropriate for the journal.

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