Interactive comment on "$C \approx 0.85$ scaling and the universal clustering structure of earthquake networks" *by* S. Abe and N. Suzuki

Anonymous Referee #2

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The paper revisits an earlier analysis of the authors focused on the clustering coefficient of earthquake network. Specifically, the study by Abe and Suzuki (2009) reports convergence of the clustering coefficient C of a particular earthquake network to the value of 0.85 as the cell size used to construct the network increases. The present work reports additional details of this convergence (collapse of properly defined convergence curves for different regions).

I do not find the reported observation sufficient for a separate publication. Particularly so since the convergence collapse, as well as the universal value of the clustering coefficient itself, is never properly discussed and interpreted. What are the implications of having C=0.85 in different regions? Can this value be reproduced by existing earthquake models? What properties of seismicity are responsible for this value? Can this

be a simple consequence of spatial heterogeneity of earthquakes? None of these or similar questions are addressed in the reviewed paper, which makes it hard to evaluate the importance of the reported observation. Furthermore, the reported convergence happens at increasing cell sizes, with robust values achieved for linear cell size being above several hundred kilometers. The cluster coefficient remains approximately constant for linear cell sizes up to about 600 km. It seems crucial to discuss what new properties of seismicity, if any, one can discover under such substantial averaging.

In conclusion, the reviewed paper reports on a technical detail related to previously published results. The study does not provide sufficient interpretation and discussion of the findings. I do not think that the paper will present interest to the NPG readership.

Interactive comment on Nonlin. Processes Geophys. Discuss., 1, 39, 2014.