

## ***Interactive comment on “Correlations between climate network and relief data” by T. K. D. Peron et al.***

### **Anonymous Referee #1**

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This paper considers the relatively new concept of climate networks, which are built by computing mutual correlations (the links, usually after some thresholding process) among climate data (the nodes). The authors have presented such a study based on a large data base. As reckoned by the authors, such a data base have some limitations, one of them being the non-uniform distribution of nodes with respect to geographical distance. In other words, some places (like North America and Europe) have a dense distribution of nodes (stations), whereas this distribution is sparse in South America, for example. In order to overcome this problem the authors have restricted their analysis to North America, where the density of nodes is relatively high. In particular, the authors have found that Eastern and Western parts of North America have distinct network properties, namely degree, accessibility and clustering, thanks to the communities revealed by the climate network structure. The results are interesting, the

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article is well-written and very clear, and deserves publication. However, as a final remark, I would like to see (perhaps in a future paper of the authors) attempts to relate these network properties with physically described phenomena. The absence of these discussion does not affect the quality of this paper, though.

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Interactive comment on Nonlin. Processes Geophys. Discuss., 1, 823, 2014.