Nonlin. Processes Geophys. Discuss., 1, C143–C144, 2014
www.nonlin-processes-geophys-discuss.net/1/C143/2014/

Nonlinear Processes in Geophysics
Discussions
Open Access

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

Anonymous Referee #2

Received and published: 17 May 2014

General comments:

The paper 'Correlations between climate network and relief data' applies a number of measures from complex network theory to a spatially distributed temperature dataset form North America. The paper identifies distinct network communities across the region, and highlights a visual correspondence with topographical features. The authors demonstrate effectively how climate networks are able to highlight dynamical features which cannot be detected through more traditional statistical techniques, making this paper a valuable contribution, deserving publication.

I agree with the paper's concluding remark that future studies focussed on other climate variables might be useful to further analyse the nature of the relationship between climate and relief. A discussion of the underlying dynamics unveiled by these methods

Full Screen / Esc
Printer-friendly Version
Interactive Discussion
Discussion Paper

would be a beneficial future step.

Specific comments:

The methods section is very comprehensive, giving details of both the equations and interpretation of network measures. I think this is very appropriate, providing an introduction to network measures for a climate science audience. There is, however, no reference to the method for partitioning communities until the results section (page 831, line 25). Perhaps a brief mention of detecting communities from eigenvalues could be included in the methods section?

Technical corrections:

Page 824, Line 10: ‘evidences’ should, I believe, be ‘evidence’

Page 824, Line 25: ‘weigths’ should be ‘weights’

Page 827, Line 19: ‘trough’ should be ‘through’

Page 830, Line 4: ‘trough’ should be ‘through’

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