

Review

"Minimal dynamical systems model of the northern hemisphere jet stream via embedding climate data"

Authors: D Faranda, Y Sato, G Messori, NR Moloney & P Yiou

Review of esd-2018-80 version 2

Recommendation: Accept after very minor corrections.

General Comments:

The article is now very much improved and generally suitable for publication with just a few typos and cosmetic changes to be fixed. It provides analysis techniques which should be of general interest to the ESD readership as well as a very simple data driven model of regime transitions of the atmospheric zonal flow.

Specific Comments:

P6, line 30: 2018 → 2019

P8, line 23: "There is also some indication of westerly propagation of the clusters": I found this a bit puzzling at first since blocks generally develop upstream of the blocking region and then lock into place with some subsequent oscillations about the central position. However, the largest signal will probably come from the largest scale planetary waves which will tend to retrogress. So maybe the retrogression is not a signal of blocking so much as of planetary wave retrogression? No action is required here.

P8, lines 29-30: Brackets around the references.

P9, line 4: ?? → 7

P9, line 12: sea → see

References:

The references need to all be made consistent with ESD requirements in terms of page numbers, capitals and shortening of journal titles etc. The following reference was incomplete:

Kitsios, V., and J. Frederiksen, 2019: Subgrid parameterizations of the eddy-eddy, eddy-meanfield, eddy-topographic, meanfield-meanfield and meanfield-topographic interactions in atmospheric models. *J. Atmos. Sci.* **76**, 457-477, (2019). doi:10.1175/JAS-D-18-0255.1