

A review of Space-time kriging extension of precipitation variability at 12 km spacing from tree-ring chronologies and its implications for drought analysis, by F. Biondi.

This paper was submitted as a review paper. However, in that sense it misses the point, because there is no proper review carried out: a long list of papers is attached, but the focus is, as the title indicates, on a very specific narrow topic, one could almost say a case study. It would have been different when the title and the contents of the manuscript would be something like 'Spatial interpolation of tree rings', or similar. That might have (or might have not) the same case study, but that would then just be there to serve as a standard reference example. I have therefore reviewed the manuscript as if it were a specific research study.

In that sense the study has some merits, although it reads very much like just another application of Pebesma's new R package. The methodology part is not strong. It reads very much like an 'and then', 'and then' story, without a proper motivation why particular techniques were selected and what purpose they served in the final analysis. There is only one equation, and although the notation is a bit odd, it serves its purpose. I could imagine that some more equations would clarify the analysis process, in particular as the aim is to present a 'Space-time kriging extension...'. In the current manuscript, for example, it is not clear why the 'cubic smoothing spline...' was fitted at all. Is that the common standard in this domain of science? For a scientific study at least a motivation should be given, a sensitivity analysis would be useful and the choice should be compared with other possibilities.

The Results section is a mix of results from the case study and a Discussion of the results in the light of other studies. I doubt whether such an approach adds to the readability of the paper and the authors should move discussion items to the Discussion section. Also, some more methodology is presented, referring to Pebesma 2013. That could also be moved, but this time to the Methodology section. If the authors agree that the manuscript should serve as a research study, then a conclusion section should be added.

For the rest the analysis seems to be OK, as it is done with a standard software package that comes from a reliable source. The results are not very exciting, but there is little wrong with it. Different maps come out, and some interpretation is given, but there is little of generic value coming out of the study.

If the editor accepts to continue with the paper, I would suggest the authors to better structure the paper, to change the title such that it emphasizes that a specific case study is done, and to better motivate the choice of techniques that they apply. That would then be a minor revision. As a review paper I must reject it, however.