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Interactive
comment

Interactive comment on "Detection and attribution of flood trends in mediterranean bassins" *by* Y. Tramblay et al.

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Received and published: 25 July 2019

First of all, I'd like to commend the authors for this very nice paper.

But there is one piece of information that is not clear to me, regarding the significance of the trends. The methods (3.1) explain two kinds of tests : (1) one test quantifies the significance of local trends at each station (I guess it's the MK test itself, which tells if the series is monotic, i.e. if a significant trend exists, while the method of Sen quantifies the trend) ; (2) another test, based on false discovery rates, is used to assess if the trends are significant regionally.

One question regarding the regional test: what is the corresponding spatial scale? Are all stations lumped together , or is the regional scale more "local", distinguishing for

instance Languedoc from Provence?

Besides, the articulation between these two tests and the produced figures is not clear to me. Let's take Figure 2 for instance (but the same applies to Figs 3, 4, 6): the caption does not tell if the plotted trend symbols (red and blue triangles) correspond to significant trends or not, and under which of the above tests (local, regional, or both). The text considers that the trends are significant, but provides no additional elements in this regard.

Looking more carefully at Figure 2, there is not the same number of triangles depending on the variables: is it the result of significance screening? or because there is not the same number of stations. I guess it's the the first solution, but some clarifications would enhance the paper.

Finally, I wonder if the figures with triangles to represent positive and negative trends (Figs 2,3,4,6) could not be augmented by making the size of the triangles proportional to the trend values based on Sen's slope.

It would be an interesting information with regard to the attribution targeted by the paper. And it is an interesting information per se, especially today of record-breaking heat wave in France!

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