

## ***Interactive comment on “Variability of extreme precipitation over Europe and its relationships with teleconnection patterns” by A. Casanueva et al.***

### **Anonymous Referee #1**

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The manuscript "variability of extreme precipitation over Europe and its relationship with teleconnection patterns" by Casanueva et al. treats an interesting and relevant subject. The manuscript is well written, the statistical analysis is well done, and the Figures are generally of good quality. Therefore I suggests its publication in the HESSD with minor revisions.

-the discussion of mapping of intense rainfall on indices for the different seasons is a bit repetitive. I am not sure you have to discuss them all. Especially for Spring it semes to me you can get away with a few lines explaining the change in trends and patterns

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-My main point would be to also include the composites with the phase of the Madden-Julian-Oscillation. Your global plot (Fig. 13) is interesting, it adds on the global teleconnections and teleconnection between Tropics and middle-latitudes, and it would bring more weight to the paper by including another global pattern. Indeed it has been shown that the NAO and predictability for Europe strongly depend on the MJO teleconnections (by the way for monthly forecasts the MJO is the main source of predictability for Europe) see e.g. Vitart, F., and F. Molteni, 2010: Simulation of the Madden–Julian oscillation and its teleconnections in the ECMWF forecast system. *Quart. J. Roy. Meteor. Soc.*, 136, 842–856.

-Figs 2, 5 etc: you denote sign of trend by down-(up)ward pointing triangles. It is impossible to distinguish this from the plots. I suggest to use different symbols for the trends

-page 12345, line 22: "Particularly, the changes in the Alpine region could be critical ..." I do not see that really from your plot, was it for including the reference ?, from your plots it looks more like Balkan and Eastern Mediterranean

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 10, 12331, 2013.

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