

Interactive comment on “Contrasting rainfall-runoff characteristics of floods in Desert and Mediterranean basins” by Davide Zoccatelli et al.

Davide Zoccatelli et al.

zoccatelli.davide@gmail.com

Received and published: 11 February 2019

We thank the reviewer for the positive review and the helpful comments. We hope that the updates are able to satisfy the points raised.

Response to the specific comments:

1. We refer to the study area as “eastern Mediterranean” because part of it is in the West Bank, which is currently under political dispute. While writing we have tried to closely follow HESS guidelines and depoliticize the article, which focus should be scientific.

[Printer-friendly version](#)

[Discussion paper](#)



2. We agree, and we have included en dashes in the manuscript to indicate ranges.
3. We agree with the reviewer that some additional description of the methods mentioned could be helpful for the reader. We have modified the manuscript to include additional descriptions.
4. We agree that it can be interesting to point out some of the characteristics of the more intense floods, and we have added some short information in chapters 3.1, and 3.2. About chapter 3.3, looking only at few intense floods most of the correlations are not significant, and include significant noise. For this reason, we have decided not to explicitly include it in this chapter.

Changes in the manuscript:

- At page 9 line 3, where we describe Δ_1 and Δ_2 we have added a new sentence: “These statistics describe rainfall organization over the catchment as seen through the filter of river network, and are used to highlight properties of rainfall that have an effect on runoff response.”
- At page 10, line 14: speaking of the baseflow separation method, we changed the sentence to: “This separation was done applying the recursive digital filter described in Arnold and Allen, (1999), a one-parameter automated filter. This geometric method has proven to be consistent between different catchments, even if the slower part of runoff can sometimes be included under baseflow.”
- In Section 3.1 we have added: “If we restrict the observations to floods with higher unit peak discharge, our sample becomes too small to draw conclusions but we can draw some interesting qualitative observation. While intense Mediterranean floods are characterized by significantly higher total rainfall compared to the distribution of Fig. 4, intense Desert floods have also higher maximum rainfall intensities and rain core depth.”

[Printer-friendly version](#)

[Discussion paper](#)



- In Section 3.2 we have added: “As we did in Section 3.2, if we restrict the observations to intense floods we can draw some qualitative result. Intense floods of both Mediterranean and Desert areas show higher durations and runoff coefficients, but the relation between the two remains approximately the same in both variables.”

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2018-550>, 2018.

Printer-friendly version

Discussion paper

