

Interactive comment on “Joint return periods in hydrology: a critical and practical review focusing on synthetic design hydrograph estimation” by S. Vandenberghe et al.

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We would like to thank the two anonymous reviewers and especially Gianfausto Salvadori and Francesco Serinaldi for their time and useful comments, which will definitely help to increase the value of this paper. It is a pleasure to see that this paper fosters a discussion on some interesting aspects of multivariate frequency analysis and that experts in the field take time to contribute to this.

The way in which the variables are selected, its consequences and whether these are annual maxima or not is a first major concern. Secondly, the differences between

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the different approaches (e.g regression vs. conditional copula) should be made more clear. Also, the practical and hydrological meaning of the different return periods should be elaborated more in depth, together with a more consistent notation in relation to past work on the subject. In the revised version, these comments and several other minor comments will be tackled. The improved manuscript will be soon available.

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