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Interactive comment on "HESS Opinions "More efforts and scientific rigour are needed to attribute trends in flood time series" by B. Merz et al.

Anonymous Referee #2

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General comments:

This is a very well written paper. It considers the issue on attribution of trends in flood time series, which, in the light of climate change, has gained increasing interest in the hydrological literature in recent years. The paper reviews different studies and demonstrates that the state-of-the-art lack scientific rigour in trend attribution. The authors argue that there is a need for a statistically consistent approach for hypothesis testing of trend attribution, and discusses ways forward to address this.

The paper provides a significant contribution to the hydrological literature on trend detection and attribution. Few minor comments should be addressed.

Specific comments:

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- 1. P. 1348, I. 28. It is not clear from the text if the definitions of "detection" and "attribution" are taken from IPCC (2007) or are the authors' own definitions.
- 2. P. 1349, I, 23. Reference to the unpublished work by Hundecha and Merz (2012) should be avoided throughout the paper.
- 3. P. 1351, I. 24. For consistency "speculation" should be included in the assessment. In fact, some of the reviewed papers are regarded as "speculation".

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 9, 1345, 2012.