

Interactive comment on “Climate impact on floods – changes of high-flows in Sweden for the past and future (1911–2100)” by B. Arheimer and G. Lindström

Anonymous Referee #2

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The paper is clearly written and well organised. There are, however, two methodological problems that make the conclusions of the work very weak.

The first problem, which is acknowledged by the authors, is the limitations caused by using only output from two global climate models, downscaling by using only one regional climate model and one model for further downscaling to the model grid. This makes the results very uncertain. Therefore, it can be questioned if the conclusions should include future percentage changes, at least not without also assessing a range of uncertainty in these predictions.

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The other problem is the interpretation based on the filtered series. Application of filtering implies that the filtered series becomes persistent and exhibits an oscillatory behaviour. Even a complete random series will attain these properties after filtering. Claiming that the original random series possesses oscillations is obviously incorrect. The paper must be modified with much less emphasis on artefacts introduced by filtering, both regarding the past and in the future.

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