

Interactive comment on “An improved statistical bias correction method that also corrects dry climate models” by Fabian Lehner et al.

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Thank you very much for your comment. We will definitely consider the paper by Vrac et al. (2016) in our paper. The introduced SSR method seems to be a simple yet effective method to correct climate models with too many dry days. Quick quantitative comparisons with our method show that the SSR method performs almost as good or even similar as our own method.

However, the bias correction method used by Vrac et al. (2016) is CDF-t which does not conserve the climate change signal as indicated in the Fig. 11, 12 and 13. Further comparisons on the climate change signal after bias correction with CDF-t are shown in the paper of Pierce et al. (2015) which you can find in our reference list. They explicitly

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state that CDF-t may alter the temperature trends found in the raw climate model.

Therefore, the method introduced by Vrac et al. (2016) is a valuable approach for the correction of the wet day frequency. Concerning the bias correction method, there are already other, improved methods in the literature, including our suggested EPPM.

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