

Interactive comment on “Flood-Related Extreme Precipitation in Southwestern Germany: Development of a Two-Dimensional Stochastic Precipitation Model” by Florian Ehmele and Michael Kunz

Anonymous Referee #2

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This is a difficult paper to read – I think some rewriting and tightening would help exposition and the reader understand what the main contributions are. In terms of the scientific problems, my major concerns can be summarized by the following comments:

1) How can you be sure the model isn't overfit? There are numerous parameters and features, and a seemingly exhaustive parameter estimation method is used, but shouldn't there be a cross-validation study where training data are used to fit the model, and held-out testing data are used to validate the goodness-of-fit?

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2) Lack of comparison against a simpler model. There are many moving pieces in this model; which components are giving the most improvement? In particular, it would be helpful to consider simpler versions of the model and compare their relative performance in simulation, this would help the reader understand which contributions are the most important and where future research may focus.

3) How well are spatial correlations maintained in the model? Spatially aggregated statistics like max, min and means are validated, but what about raw correlations?

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