Geoscientific

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Discussions

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Interactive comment on "A Bayesian Framework Based on Gaussian Mixture Model and Radial Basis Function Fisher Discriminant Analysis for Flood Spatial Prediction (BayGmmKda V1.1)" *by* Dieu Tien Bui and Nhat-Duc Hoang

Anonymous Referee #2

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General comments: Overall the presented work is technically interesting and contains novelties. However, major revisions are required to make it suitable for publication in GMD. The paper currently does not clarify the benefits of the proposed data-intensive model for management purposes. The presented results seem promising in the region of study but general statements about superiority of the proposed model in comparison with other techniques could only be made through evaluation in other flood prone areas. In terms of presentation and English writing, the paper is quite poor in its current form and does not seem suitable for publication without major edition.

Specific comments: 1. Abstract is too short and not informative. 2. The literature review of flood forecasting is poor. Current literature review is only focused on specific studies similar to the current work while ignoring the overall picture of flood and streamflow forecasting. 3. What is the definition of flood used in this study? What is the difference between flood and no-flood? How severe an event needs to be to be called flood? How can predictions be useful for government agencies without providing an estimation of the magnitude and severity of the events? 4. Flood points are used in this study, and not flood areas, with GIS maps. So for information on flood influencing factors in each of these flood points, how many map pixels were used? Was each flood point only associated with the pixel it was located in? If more map pixels than one were used to get information on flood influencing factors for each flood point, how was the area of analysis (relevant pixels) determined for each flood point?

Technical corrections: There are too many instances of poor English writing throughout the paper to be listed. Major edition seems necessary to make the paper suitable for publication.

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Interactive comment on Geosci. Model Dev. Discuss., doi:10.5194/gmd-2016-311, 2017.