Interactive comment on “HESS Opinions “Classification of hydrological models for flood management”” by E. J. Plate

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I enjoyed reading this paper which makes clear, in a classical and engineeristic perspective, the main problems related to flood forecasting. I generally like the classical approach to hydrology, which aims to identify design variables (in this case flood forecasts) with the support of advanced theory.

I decided to write this short comment because I am missing a more dedicated treatment of uncertainty assessment in flood forecasting. The author rightly points out that uncertainty assessment is very important (page 4677, lines 25-30) in order to provide end users with a complete information, but the recent developments about forecast uncertainty estimation are not mentioned. Actually, the literature proposed
many studies in the last years such as, for instance, Todini (2003), Krzysztofowicz (2002), Mantovan and Todini (2006), Beven et al. (2008). Other interesting references can be found in a recently published special section of Water Resources Research (http://www.agu.org/journals/wr/special_sections.shtml?collectionCode=ASSESS1).

I understand the author cannot deal in detail with any open research problem linked to flood forecasting. However, I have the feeling that a mention to some recent developments could help the reader to obtain a better picture of this interesting issue.

References


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