

Interactive comment on “Bayesian discharge rating curves based on B-spline smoothing functions” by K. M. Ingimarsson et al.

Anonymous Referee #1

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This paper proposes the use of B-spline smoothing functions to estimate discharge rating curves. The proposed model is compared to a more common approach based on the power-law function using data collected in 61 rivers in Iceland.

In spite of the importance of this topic, the paper does not reach substantial conclusions. More specifically, the manuscript simply reports the results of an exercise dealing with a specific technical issue for a very particular case study and only considering a single one alternative model. I see a lot of data crunching there and the analysis of results completely miss physical explanations. Also, references to the large number of papers dealing with this topic is missing. Finally, I could not find the description of the numerical experiments sufficiently complete and precise to allow their reproduction by

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fellow scientists.

In conclusion, I think that this manuscript does not add enough to the Science of Hydrology to be published on HESS.

Some minor items: 2751-7 criterion? 2751-17 conclusions? 2765-22 achieves?

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