

# ***Interactive comment on “Spatial organisation of catchments – assessment and usage for impartial sub-basin ascertainment and classification” by H. Oppel and A. Schumann***

**H. Oppel and A. Schumann**

henning.oppel@rub.de

Received and published: 6 October 2016

Regarding your first point, the missing context, we have to point out that we omitted a direct context on purpose. The manuscript is focused on the flow path orientated assessment and the sub-basin ascertainment algorithm. Or in general on the methodology. Our case studies are supposed to test its applicability on different catchment characteristics and geomorphologic structures. The context which the methodology is applied to is up the user. For our case study we assumed a context (pore volume and slope as the driving forces for a semi-distributed model or catchment classification) and applied the algorithm. The obtained results are not believed to be the optimal complexity for a model, but they are the best results in terms of heterogeneity of these selected

[Printer-friendly version](#)

[Discussion paper](#)



characteristics.

As mentioned in the Conclusions of the manuscript, we are aware that we have to demonstrate the benefits of the presented methodology for different purposes. This includes a modelling and a regionalisation experiment. We are currently working on these tasks and results will be published soon. However we do not intend to apply this algorithm for a subdivision of river basins with an existing model (e.g. HBV) but to develop a new modelling approach which can make use from the results in an optimal way. In this sense a modelling application would be too early and in our opinion beyond the scope of this paper. Here we focus on the proposed methods.

Regarding the topic of validation our point has not been expressed clearly. The proposed methods are independent from the case study. Nevertheless, the used threshold value ( $\tau_R$ ) and parameter ( $e$ ) are, indeed, derived from the Mulde catchment. We added a line in the manuscript (data section) that the basin of the Mulde is our development basin and the three remaining catchments are used for unbiased application to demonstrate the generality of this approach. Our previous statement accounted for a missing observation for the validation of the results obtained from the algorithm.

Uncertainties arising from the data are indeed neglected in this study. A note about the uncertainties of input data, concerning all spatial information (soil data and topography data) is added to the data section.

---

[Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-486, 2016.](#)

[Printer-friendly version](#)

[Discussion paper](#)

