



## **Effects of model and data complexity on the results for discharge simulation**

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Very often, model structure in hydrologic modelling is static and there are not many possibilities to adapt the structure and the data density of the catchment. However, the upcoming of spatial modelling languages like PC-Raster makes it easier to adapt the model itself to the condition of the catchments. To test the effects of this approach we have simulated discharge of the Kielstau, a small, lowland catchment in Northern Germany of 50km<sup>2</sup>. This paper shows and discusses the result of PC-Raster models with different model structure and different spatial resolution of input data. The simple base model was extended with additional modules for groundwater, surface runoff, a wetland compartment. The data base includes different versions of land use and soil, varying from one soil for the whole catchment to a detailed soil and land use map. The results were classified according to their volume error and the Nash-Sutcliffe index.