Calibration of Flood Models – General Description

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Short Description

To predict floods using three dimensional solutions of the Navier-Stokes equations is completely impractical because of computation time and the large numbers of parameters that would need to be specified for such a model. The models which are actually used to predict flooding are so simplified that the parameters do not necessarily match a physical value. Parameter values must be calibrated by assessing the ability of the model to predict past events for which we have data.

In this activity the task is to calibrate the parameters of a flood model in order to predict a flood event. The effect of an increase in the water level is animated so we can see how our model predicts the flood event over time.

At the end of the activity a little more information is given on how flood model calibration can result in probabilistic predictions.