



Uncertainty assessment of early flood warning driven by the TIGGE ensemble weather predictions

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The Xinanjiang hydrological model is used in flood forecasting driven by the TIGGE ensemble weather predictions. Uncertainties are inherent in both the ensemble weather predictions and the hydrological models. The study aims to study uncertainties originated from (1) the ensemble weather predictions and (2) the hydrological model. The study area is the Xixian catchment, upstream of the Huai River located in central east China. The catchment has a number of reservoirs which account for approximately 10% of the total catchment area. Reservoir water release plan is the key to a successful and reliable flood early warning and mitigation scheme. Different scenarios of reservoir releases are taken into account in this study. A benefit-cost analysis is carried out to estimate the overall value for money when an early warning is issued under various scenarios and probabilistic forecasts.