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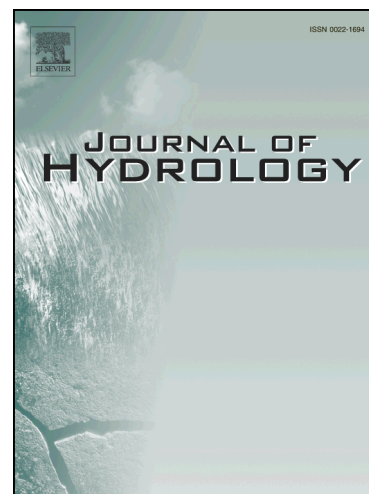
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Modeling flash floods in ungauged mountain catchments of China: A decision tree learning approach for parameter regionalization

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Abstract

Flash floods in small mountain catchments are one of the most frequent causes of loss of life and property from natural hazards in China. Hydrological models can be a useful tool for the anticipation of these events and the issuing of timely warnings. One of the main challenges of setting up such a system is finding appropriate model parameter values for ungauged catchments. Previous studies have shown that the transfer of parameter sets from hydrologically similar gauged catchments is one of the best performing regionalization methods. However, a remaining key issue is the identification of suitable descriptors of similarity. In this study, we use decision tree learning to explore parameter set transferability in the full space of catchment descriptors. For this purpose, a semi-distributed rainfall-runoff

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