



Stochastic investigation of the streamflow process adjusted for human impact

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The streamflow process is important in water resources management and although it has been thoroughly examined in a stochastic framework, still an integrated model that takes into account the human impact has not yet been thoroughly studied. Here we examine several datasets, in numerous locations under different climatic regimes, with long time series comprising streamflow measurements from small and large catchments in order to identify patterns induced by human impact and in particular streamflow regulation by upstream reservoirs. Based on the above results and on the concepts of ergodicity, stationarity and homogeneity, we try to identify stochastic similarities in regulated flow regimes in different catchments.

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