



## **Comparing kinematic wave model parameters estimation methods for spatially distributed flash flood forecasting at ungauged locations**

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Flash flood forecasting contributes to risk mitigation by providing an anticipation capacity. A spatially distributed hydrological modelling approach requires a suitable streamflow routing method for accurate prediction of peak flows magnitude and timing. Thus, the objective of this work is to provide a comparative evaluation of several kinematic wave model parameters estimation methods for spatially distributed flash flood forecasting at ungauged locations. Different formulations of river width estimation are tested, as well as the effect of river cross section geometry. Several flash flood events in the French Mediterranean region are studied and various performance criteria are used to assess the advantages and limitations of the different approaches.