

## **A 2D FLOOD INUNDATION MODEL BASED ON CELLULAR AUTOMATA APPROACH**

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**Summary.** The European Directive 2007/60 introduces important modifications on flood risk evaluation and management, and calls for an extensive application of 2D models. Responding to this need of accurate and fast methods for the simulation of flood events, in the past years different hydraulic models based on reduced complexity approaches have been realized and successfully applied. The present work describes a reduced complexity model based on the cellular automata approach and the diffusive wave equations. The model was tested in different numerical cases, providing good results in terms of stability, computational speed and accuracy of solution.