

Interactive comment on “Dynamic mapping of flood boundaries: current possibilities offered by Earth Observation System and Cellular Automata” by A. Gerardi et al.

Anonymous Referee #1

Received and published: 23 January 2014

I'm sorry to say that this manuscript lacks some basic requirements to be considered for publication. Basically, the paper describes an existing cellular model developed to study river morphological evolution, and introduces a new technical feature to load satellite images within the model interface (which is not any new idea as it is a common feature in many commercial and research models). A test case for the application of the model is also presented and the model is said to provide a good performance; however, the authors do not provide at all any model result to support such a statement. In order to assess the effective performance of the model and the quality of the research work, the results should be shown, discussed and compared with observations and ex-

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perimental data. In addition, the exposition of concepts is often confusing, and severely undermines paper readability. For instance, section 6 starts with a comment on model results, and continues with the description of the test case, mixed with general considerations about historical factors affecting river morphology in Italy. Also, it is not clear how the model is applied (watershed mode or reach mode?), nor it is clear how the model is integrated with TOPMODEL (is it using TOPMODEL equations?). From this point of view, the manuscript needs to be heavily revised by providing straightforward descriptions of the model itself and the applied procedures. In addition, figures have a low quality and some of them are not really relevant for a scientific paper (eg. Fig 5 and 6). There are also several inconsistencies along the text: for instance, the 2008 flood is mentioned in the abstract but not elsewhere. Finally, there are numerous typos and grammar errors.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 11, 833, 2014.

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