

## ***Interactive comment on “Hydrodynamics of pedestrians’ instability in floodwaters” by Chiara Arrighi et al.***

### **Anonymous Referee #1**

Received and published: 16 July 2016

This is a nice paper describing a new hydrodynamic model simulating pedestrians’ instability during flooding events. The manuscript includes nice figures and is overall well written, but a double check from a English native speaker would help improve readability. Yet, I have 2 main major concerns that should be address before publication.

The first one is related to the actual usefulness of such a model in risk management. The authors state this point in various parts of the paper, but they do not clarify how such a model can actually be used. I think this clarification is crucial, as its usefulness is one of the selling points of such a model.

The second one is related to the lack of a sensitivity analysis. The current modelling exercise does not allow a proper evaluation of the fact that good results are obtained for the right reasons. The paper describes it only with reference to mesh resolution, but

C1

there are numerous parameters affecting model outcomes and, by playing with them, one can get a plethora of different results. Thus, to evaluate the proposed model a comprehensive sensitivity analysis is crucial.

---

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-261, 2016.

C2