Natural Hazards
and Earth System
Sciences

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Discussions

Interactive comment on "Brief Communication: Contrast stretching and histogram smoothness based flood detection" *by* F. Nazir et al.

Anonymous Referee #3

Received and published: 4 November 2014

This paper deals with an interesting. However, it only presents a pre-processing approach for flood detection using SAR image. Indeed, the output of the proposed method is not a flood map, but a RGB composition based on SAR images. In this context the title is not adapted.

In this context the introduction is not really relevant here. Indeed methods for detecting flooded pixels on SAR images are presented in the introduction while the proposed method does not go that far. It could be worth to mention as an alternative also fully automatic method as the ones proposed by Matgen et al. and Giustarini et al. (see below).

More important, in the introduction, the authors might tell something about the speckle

and its processing (filters) since this could be responsible for contrast issues.

The proposed method is not really clear to me due maybe to the way of writing. I think this part might be a bit detailed. It is also not 100 % clear to me how the propose method is different from the one proposed by Dellepiane.

Moreover, pre and post flood images are not really correct since one of the two images might have been acquired during a flood event.

The visual comparison based on figures 2 and 3 is not sufficient even for a brief communication in my opinion.

P. Matgen, R. Hostache, G. Schumann, L. Pfister, L. Hoffmann, and H.H.G. Savenije. Towards an automated SAR-based flood monitoring system: Lessons learned from two case studies. Physics and Chemistry of the Earth, 36(7-8):241-252, 2011.

L. Giustarini, R. Hostache, G.J.-P. Schumann, P. Matgen, P.D. Bates, and D.C. Mason. A change detection approach to flood mapping in urban areas using TerraSAR-X. IEEE Transactions on Geoscience and Remote Sensing, 51(4):2417-2430, 2013

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 2, 5037, 2014.