

Interactive comment on “Rip current evidence by hydrodynamic simulations, bathymetric surveys and UAV observation” by Guido Benassai et al.

Anonymous Referee #2

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Dear colleagues, the manuscript submitted for publication is an interesting integrative approach to detect or identify the existence of rip currents. As a consequence, it could be the basis for a beach hazard system as properly mentioned in conclusions.

Nevertheless, I have some comments and suggestions regarding two aspects. The first is related to the clarity of the paper (Although the authors comment in the reply to another reviewer that the language has been corrected). Thus, for instance, in the section describing the non-dimensional fall velocity and RD parameters there are very strong transitions between sentences that make difficult to understand the underlying ideas. Furthermore, variables involved in Eq. 1 are not described. On the other hand, the authors mention that both parameters have been related by Short and Brander (1999) but, in my opinion, the short sentence used to describe this relationship is neither clear and enough to understand the relationship between both parameters (in

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fact two interrelated phenomena). I would like to see a more clear explanation of this linkage.

I agree with the another reviewer that description of the surveying procedure should be improved and some comments on the spatial resolution (which does not allow to discern the bathymetric changes "theoretically" due to rip currents.

A more general comment refers to the description of bathymetric rips (p2, 14). The sentence " ... which are influenced by morphological variability relatively persistent in space and time" puzzles me. In this case morphological variability is low but and persistence, thus "inducing the formation of rip currents". In this sentence, I would like to pose a question: Which comes first, the channels on the seabed or the rip currents" (The chicken or the egg)?. The authors ensure that the rip currents are due to the presence of the channels, but why are the channels in that position?.

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