

Interactive comment on “Projected impact on wave-driven harbour agitation due to climate change – application to the Catalan ports” by J. P. Sierra et al.

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Received and published: 30 March 2015

I agree with most of the comments/recommendations pointed out by the reviewers. Thus I consider that for the paper to be accepted for publication it must undergo major revision. The authors should address all the issues pointed out by the reviewers, either modifying the present version or arguing why they don't do that. In particular, I would ask the authors to work on the following ones:

i) Regarding the methodology, more details should be given related to the modelling process, particularly on those issues that are more problematic such as the use of

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linear theory. The use of the latter should be better justified and the eventual drawbacks of that option should be pointed out.

ii) Concerning the results, the intermodal variability is a critical issue. In this regard and for the information to be useful in practice (e.g. for harbour authorities or for other stakeholders) some uncertainty measure should be inferred from the model error and from the model dispersion. Deriving the uncertainty related to the GCMs and to the RCMs separately would be of great interest for instance.

iii) Finally, the conclusions should be better structured and more concise. This is probably not easy given the large number of harbours being examined, but it should be attempted in order to leave the reader with a message as clear as possible.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 3, 955, 2015.

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