

Interactive comment on “The impact of wave physics in the CMEMS-IBI ocean system Part A: Wave forcing validation” by Romain Rainaud et al.

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This paper presents results from a regional ocean-wave coupled system for the Iberian Biscay and Ireland (IBI) domain. Validation of modelled significant wave height and peak period from a 1-year duration simulation is performed with comparison to satellite and in-situ observations. Two different wave model configurations are compared, MFWAM V3 and MFWAM V4.

Note this is Part A of a 2-part submission, with Part B covering validation of ocean model results using the wave model data as forcing. I was invited to review the Part B of this paper, but place this comment here for consistency and cross-reference to comments on Part B.

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I was initially sceptical that the papers really served as ‘Part A’ and ‘Part B’ papers, and that each should be required to stand on their own scientific merit. I am still of this opinion. On closer examination, I found both papers to have large sections in common, which is not acceptable for publication. To my view, the Introduction (Section 1) of both submitted papers are identical up to their final paragraphs. The description of observed data (Section 3.1 of each manuscript) are also identical. I am a bit surprised this was not queried by the journal before the manuscripts were ‘validated’ for review in fact.

Given the strong cross-over between the Part A and Part B texts submitted, my recommendation for the Part B paper was that both contributions should be rejected in their current form, and would require major revision before resubmitting after being adequately combined to a more coherent single manuscript.

This would better reflect the content currently in each manuscript, likely just requiring some reworking of Section 2 to provide a better introduction to the wave modelling (which is needed to aid understanding of Part B results), and some discussion of wave forcing validation based on Part A results alongside a more concise treatment of the results from Part B. If, as likely, this requires some condensing of the results in Part A or Part B, I am confident this will lead to a more robust, clear and concise paper describing wave effects within the IBI system. For example, the authors should critically assess which figures could be combined and reworked without any loss of information.

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