

Interactive comment on “Accuracy of altimeter data in inner and coastal seas” by Luigi Cavaleri et al.

Luigi Cavaleri et al.

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Reply to comments by Referee #2

Thank you for your valuable comments and suggestions. About the various points you raised:

- General comments We agree with what you point to. The vicinity of land should be a known problem. However, although if in our view not the most interesting information, we stress this point because it is frequently forgotten (as in the project this Special Issue is related to). As for triple information, of course it is a powerful and amply used technique. However, it would not be suitable for our purpose. Superposed data, in space and time, between different altimeters, plus of course the wave model, would

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provide a very limited dataset, unsuitable for any conclusion. On the contrary we were looking for a statistically solid reference, hence the approach we followed. We agree we do not have crucial new findings. This was not our purpose. However, acting as users, we believe that the evidence, contrary to diffused claims, that different altimeters provide wave height estimates with statistically significant different best-fit slopes up to 10% difference or more (more than the accuracy of a good wave model) is an instructive and useful piece of information. The figures have been corrected (lat-lon and geographical information added) and captions have been completed.

About your specific comments: (Page) 3 - (line) 53 - We agree, but Topex-Poseidon, certainly one of the best instruments, stopped working long time ago. We are looking for present information. 3 - Jason-1 ok 3 - 55 – You are right of course. The Bragg reference has been deleted. Thank you. 3 - 58 - done 4 - Figure 1 - As explained to also another referee, the choice was between filling up several pages with large figures or compacting the information. After asking various opinions, we opted for the latter solution considering that the key information, the best-fit slopes, is clearly visible. As suggested, the captions now provide the required information. 4 - 89 - As explained in the text, it is simply a direct statistical comparison of the model versus each altimeter value. For each altimeter we then derived the best-fit slope. Different slopes suggest different (not wrong!) performance by the various altimeters. That this is statistically significant is shown by randomizing the selection in independent datasets and obtaining the same results. 5 - 2 - see reply on 4 - 1 6 - 3 - see reply in 4 -1 6 - 107 - now specified in the text 6 - 120-125 - ????? paolo 7 - 4 - done, thank you 7 - 5 - ?????????? 8 - 167 - done 8 - Figure 9 - ?????????? paolo

Thank you for your attention and good suggestions. Best regards,
the authors

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