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Interactive comment on “Altimetric sampling and mapping procedures induce spatial and temporal aliasing of the signal – characteristics of these aliasing effects in the Mediterranean Sea” by M.-I. Pujol et al.

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General Comments:

The paper presents a detailed (may be too long) description of problems related to the spatial and temporal aliasing of altimetric measurements in the Mediterranean Sea focusing on the inability of the present altimeters configuration to fully resolve periods less than 30-40 days. The discussion on the possible origin of this problem is well documented and gives an interesting view of the present limits, but also of the poten-

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tial, of these very useful satellite measurements. As a general comment this paper is interesting because it deal with an important issue for Mediterranean Sea dynamic studies and modelling activities that, always more frequently, make use of these data. It will also be interesting to mention the possibility to use, in the future, a wide-swath altimeter. Could this new type of instruments contribute to reduce the spatial aliasing effect? In my opinion the paper merits to be published with a very minor revision based on the following specific comments.

Specific comments:

Section 2.2: 1) what is the difference (if it exists) between the basic processing of the altimeter data proposed by this paper and the standard products available in AVISO?
2) Why a seven-years mean SSH was computed instead of a longer time mean?

Section 2.3: second line. Why drifters?

Section 3.2: I have some problem with the colour bar of figure 1. The mean value of the western basin seem to be higher then 7 cm² (may be something more close to 9-10). Similarly in the eastern part values appear higher than 9 cm². Does the very high values of the north Adriatic Sea participate to the estimate of the mean?

Section 3.3: Being the higher revisit frequency 10 days (topex and Jason) why the maps are generated every 7 days? Could the authors justify the choice of this particular time interval?

Section 5.2.2: having spent so much in explain all the details of the various corrections and sensitivities the explanation of the observed local differences (last sentence of the section) looks very short and quite speculative. May be some problem with altimetric measurements near the coast and the need of a specific processing for near coastal areas should briefly discussed.

Section 5.3: In this section structures like lerapetra or pelops are mentioned. I well know all the places and the cited dynamical structures but I can imaging that for those

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reader that are not so familiar with the Mediterranean Sea a maps with locations names and structures position could help more than a citation.

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