

- 1) *In page 4, line 9, it is not clear why the mean ssh from 1993 was removed. Why not removing the average for the whole period?*

The removal of the mean SSH of 1993 is done by Aviso (probably as part of their calibration process) Since this is a technical point that relates to the way Aviso generates the data they distribute we refer the reader to Aviso's web site for further details on the way data is produced instead of providing some of these details in our paper. Text will be modified accordingly

- 2) *In page 6 the authors mentioned an increase of the amplitude close to the coast. Although they state the topography is not an issue for that, it is hard to assume it. First, close to the coast, satellite altimeter sampling is not very accurate. Secondly, and most important, that region seems to include the slope and the shelf, where other processes are very important, such as topographic waves and continental shelf waves. The main dynamics is not determined by the theory presented by the authors in that region.*

Topographic Rossby waves as well as all other high-frequency waves are all filtered out by our 35 days averaging. The accuracy by Aviso data near the coast has been improved in the 20-year product used in this study (and in any case it should not be expected lead to an increase in the signal). The text will be modified to reflect this issue.

- 3) *In page 14 the authors did not consider other explanations, as mentioned before, associated with the topography. The same theory is applied for a region with very distinct characteristics and as such should be analyzed. I would recommend removing the analysis of the data between the coast and 35oS.*

Done. Figure 5 will be removed in the revised version.

- 4) *The authors present 3 different methods to estimate the propagation speed, and consider all of them with the same reliability. It would be a good contribution if the differences among those methods could be discussed and some suggestion about the method that could better estimate the propagation speed in the domain could be given.*

The interested reader can find a detailed description of the various methods, including a comparison between them in De-Leon and Paldor, 2016 in Acta Astronautica (which is referenced in the manuscript) and repeating it in the present work is an unwanted digression.

- 5) *It would also be a good contribution a discussion about which of the current theories could better explain the observed propagation velocities.*

A detailed comparison between the applicability of harmonic and Trapped theories to observations is given in (new) Figure 5 (i.e. Figure 6 of the original manuscript) and in the discussion section. A more detailed review of all the theories that have been suggested in the last 20 years and their success in explaining these particular observations is beyond the scope of this paper in which we focus on the single case where a zonal boundary exists (over a sizeable range of longitudes) where the trapped wave theory is relevant.