

Can satellite altimetry observe coastally trapped waves on sub-monthly timescales?

The revised version of the manuscript shows clear improvements compared to the original submission. The clarifications introduced by the authors significantly enhance the readability of the text and the methodological explanations are now much easier to follow. A notable strength of the revision is the integration and discussion of the Complex Empirical Orthogonal Function analysis. This addition provides a more robust assessment of the spatio-temporal characteristics of the coastally trapped waves and demonstrate the propagating nature of the detected signal. Overall, the manuscript is well-constructed, and I recommend publication after the addressing of the following concerns.

Introduction :

Please better explain why accurately detecting CTWs is crucial for describing and predicting coastal circulation, upwelling processes, and associated ecosystem impacts. This aspect is currently mentioned in the conclusion but should also be highlighted earlier to motivate the study.

Data :

- You add that the model is eddy-resolving, but a resolution of 10 km makes the model eddy-permitting in the study region.

SWOT Coverage and Sampling :

- Please indicate where the SWOT swaths intersect the continental shelf in your study region. Adding this information directly in Figure 1 would greatly help interpretation.
- In Figure 2 (Coffs Harbour), does the time series correspond to a location directly sampled by SWOT? If so, it would be useful to compare results with a location not sampled by SWOT to assess sensitivity to swath coverage.

Spectral Content

- The CMEMS and MIOST time series appear to show virtually no energy at periods shorter than 20 days. How do you reconcile this with the periods of 14 days (MIOSTSWOT+nadirs) and 18 days (CMEMS) obtained from the CEOF computation?
- Both the spectra and Figure 3 show a peak around 22.5 days. This feature is not currently discussed. Please clarify whether this peak corresponds to CTWs or to another process.

-In Figure 4, the correlation with Bermagui does not appear to be significant for any of the products, even though Figure 8 shows correlations exceeding 0.8. Could you provide an explanation for this discrepancy?

-Line 213: you state that the first CEOF mode explains 71% of the total variance of the filtered signal. Please clarify whether this refers only to the filtered signal or to the total variance.

CEOF modes :

I agree with your answer and is not necessary to add the analysis of modes higher than one in the manuscript.

Conclusions

I am globally satisfied by the answers given by the authors to my first review and I recommend the publication after minor corrections.