

Geosci. Model Dev. Discuss., author comment AC3  
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## Reply on RC1

Nairita Pal et al.

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Author comment on "Barotropic tides in MPAS-Ocean (E3SM V2): impact of ice shelf  
cavities" by Nairita Pal et al., Geosci. Model Dev. Discuss.,  
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Thank you very much for sending us the report and for giving us the chance to address  
the concerns. We thank you  
for taking the time to prepare the report on our paper.

We are pleased to receive the positive review of our manuscript. It is indeed encouraging  
to read that our work on implementing tides in MPAS--Ocean is significant, and will enable  
more accurate tidal predictions, and hence will facilitate prediction of global climate  
variability. The comments have greatly contributed to the improvement of our  
manuscript.

We give below detailed responses to the various questions and comments. In addition, we  
have added the particular version of the Energy Exascale Earth System Model that we use  
in the title of the manuscript, the main body of the paper, as well as the code availability  
section, as suggested by the editorial team. The changes in our revised manuscript, which  
have been made to address the comments of the Referee and the editorial team, are  
indicated in blue. We have addressed the concerns fully. We hope, therefore, that our  
paper will now be accepted for publication in Geoscientific Model Development.

Best regards,

Nairita Pal (on behalf of all authors)

Please also note the supplement to this comment:

<https://gmd.copernicus.org/preprints/gmd-2022-188/gmd-2022-188-AC3-supplement.pdf>