

Geosci. Model Dev. Discuss., author comment AC2  
<https://doi.org/10.5194/gmd-2022-151-AC2>, 2022  
© Author(s) 2022. This work is distributed under  
the Creative Commons Attribution 4.0 License.

## Reply on RC2

Hao Huang et al.

---

Author comment on "A nonhydrostatic oceanic regional model, ORCTM v1, for internal solitary wave simulation" by Hao Huang et al., Geosci. Model Dev. Discuss.,  
<https://doi.org/10.5194/gmd-2022-151-AC2>, 2022

---

We apologize for our carelessness and mistakes and express the most gratitude to the referee for raising these important questions.

Based on these valuable comments, firstly, the model description section will be rewritten, and we all authors will discuss it again to make sure the reliability and accuracy of final results. Particularly, the splitting of pressure method and nonhydrostatic algorithm are going to be introduced more clearly. We will also add all boundary conditions including the top and bottom boundaries. Secondly, the ORCTM's advantages over other nonhydrostatic ocean models are going to be discussed and pointed out in the final part of this paper. Thirdly, we also attempt to search for other direct observations attesting the correctness of ORCTM simulation as well as the typical laboratory observations that we use from Michallet and Ivey (1999). Finally, we will take the referee's all suggestions and make professional proofreading of our text carefully.