

Response to editor

We deeply appreciate the editor's patient of handling our manuscript, and below is our responses (**R**, blue) based on the comments

Therefore, while I find that this is an interesting new method that is worth publishing, it needs to be much clearer the manuscript is mainly presenting a new approach and not attempting to demonstrate its superiority.

R1: We agree with the editor's suggestion. In the revised version, we modify and remove all misleading statements regarding the superiority of the approach.

- The abstract should mention that the improvement provided by the GC approach is only over the CABLE model (last two sentences of the abstract).

R2: We revise the sentence as follow:

“Comparing to CABLE, we demonstrate the GC approach delivers evident improvement of water storage estimates, consistently from all basins, yielding better agreement at seasonal and inter-annual time scales.”

We also revise the objective of the study to clarify this, as follows:

“The main objective of this study is to present the GRACE-combined (GC) approach to improve the model estimated ΔSM and ΔGWS at regional scales.”

- Please ensure throughout the manuscript that it is clear that you are not claiming superiority of this method over other techniques (e.g. the term 'improved' should be removed from the title, because it suggests improvement over other methods).

R3: All misleading statements regarding the superiority of the approach are removed or modified. The term “improved” is also removed from the title.

- In the caption for figure 6, panel labels a-c should be introduced before labels d-k. I would therefore suggest changing the order of the panels in the figure (e.g. putting the top three panels at the bottom, and separating them from the other 8 panels; otherwise the reference to columns two and three is confusing).

R4: We thank for the editor's suggestion. We modify the figure based on the suggestion. Now, Fig. 6 only contains 8 panels, and the GRACE results are presented in a separated figure (Fig. 7).