

## **Review of the article: "Evaluation of Globally Gridded Precipitation Data and Satellite-Based Terrestrial Water Storage Products Using Hydrological Drought Recovery Time" by Çakan et al.**

I thank the authors for their thoughtful revisions and clarifications. The objectives, results, and conclusions are now more clearly presented, and the addition of a discussion section helps better contextualize the findings. The manuscript is substantially improved.

However, before recommending acceptance, I suggest a minor revision to improve the discussion of the method's limitations.

The current discussion of limitations remains somewhat superficial. For example, the authors mention line 496 that external factors, such as anthropogenic water use or land cover changes, could influence DRT estimates, and that uncertainties in data retrieval and processing exist. While these points are valid, they are presented quite briefly. A more reflective discussion of these limitations, including potential impacts on the linearity assumption and the overall reliability of DRT estimation, would provide a deeper understanding of the method's scope and constraints.

In particular, it would be helpful to briefly address:

- The role of unobserved hydrological fluxes, such as evapotranspiration and runoff, and how they might affect the relationship between precipitation and storage variations.
- The spatial scale mismatch: while precipitation data are aggregated to the GRACE resolution, a brief discussion of how differences in signal characteristics may still affect comparability would be useful.
- Regression behavior: The authors present a global map of  $\beta_1$  values, which is informative, but further clarification is needed on how to interpret high values (e.g.,  $>2$  or  $>3$ ). High  $\beta_1$  values could indicate non-linearity in the precipitation-storage relationship or potential methodological issues, such as data noise or model misfit. A brief discussion on this would help assess the model's reliability and its applicability to different regions.

I am not requesting any new analysis, only a more explicit discussion of these points in the text.