

Comments to the author:

Reviewers provided positive comments on the paper. Authors made changes on the manuscript according to the comments. Authors are required to elaborate further on the need and new contribution for this study, and have a thorough editing on the conciseness and cohesiveness between sections of the paper.

Author's response

An introductory paragraph to section 3 was added to improve the cohesiveness between sections. An effort was made to shorten the paper, in particular two paragraphs were deleted (lines 52-59 and 162-166 of the previous version of the manuscript). Several paragraphs were added on section 4.3 following reviewer 1's remarks, however we believe that they are essential for the analysis and shows more clearly the contribution of this study (ability of the validation method to analyse the performance of the downscaling process in terms of dominant hydrological processes and their seasonal variability). More explanation were given in lines 79-81 to explain how comparing performance metrics to a low resolution reference is crucial in evaluation GRACE downscaling methods.