

EGUSPHERE-2024-1463 major revisions

We are grateful to the reviewers' comments and have tried to accommodate our revision to their concerns and the editorial guidelines. In particular, we have tried to improve our paper and clarify its presentation of the methodology, and have highlighted essential information that was missing in the main text of the submitted version. The revised version addresses the points raised by the reviewers, including a restructuring of the main text to include all essential information. However, we have revised the paper based on past experience with previous publications, where we have used appendices for providing extra details that may get in the way for readers who are more familiar with the topic, as we expect many of the readers would be. This way of structuring the papers has proved successful in the past, and we typically have many thousands of downloads/visits according to the statistics/metrics provided by the journals.

The term 'downscaling' is well-established within the World Climate Research Programme's coordinated downscaling experiment (CORDEX) programme and also used by the Intergovernmental Panel on Climate Change (IPCC). We are surprised that the reviewers have an understanding of it being merely mapping onto a finer resolution, and we want to follow its more conventional use as 'empirical-statistical downscaling' is well established in the literature, indeed IPCC and CORDEX also refer to it where it encompasses individual or groups of station measurements. Moreover, we don't want to change this practice, particularly since a major objective of our paper is to present a new downscaling method for deriving daily precipitation statistics. If the reader still misinterprets the term downscaling in the revised version, then (s)he has not read it carefully enough. It is possible that HESS's readership is not so familiar with downscaling, the work coordinated within CORDEX, and latest advances in the progress within the field of downscaling, so we tried to provide a pedagogic introduction to downscaling in Appendix A.

Yours sincerely

Rasmus Benestad