

The authors propose a computationally efficient stochastic downscaling framework that combines Generalized Additive Models with regression splines and Auto-Regressive Moving Average models to generate realistic daily temperature and precipitation time series at point locations from ERA5 reanalysis data. The framework is evaluated across 4,071 European weather stations over 60 years using a comprehensive set of proper scoring rule-based criteria. The method shows potential utility for hydrological and climate-impact studies. However, the manuscript in its current form is not ready and requires substantial revision.

GENERAL COMMENTS

1. The most critical concern is the numerous empty parentheses “()” across the manuscript. Notably, these empty “()” occur **16 times** throughout the text, including in places where definitions or citations are required. This significantly undermines readability.

For example, in the Introduction, “[However, for highly localised observable variables, such as precipitation, several studies have shown that ERA5 is not always able to accurately capture local conditions \(\).](#)” and “[, e.g., when target-resolution gridded data products are available for training \(\).](#)”

2. The manuscript uses ERA5 and GSOD data that, in principle, extend well beyond 2010. However, the analysis is restricted to 1950–2010 without a clear justification. The authors should provide a more explicit explanation for why only data until 2010 were used.

3. The selection of donor stations solely based on Euclidean distance may not accurately reflect climatic similarity, especially in maritime or complex terrain regions. Sensitivity to the choice of K would be better discussed not only through skill scores but also through climatological reasoning.

SPECIFIC COMMENTS

Figures 7, 8 and 12: The hexagonal binning obscures station-level heterogeneity. It would be better if it included small multiples of scatter plots to show skill score vs. elevation difference/coastal distance for key metrics.