

Editor decision Point by point

After reviewing the Reviewers' comments and your answers, I am happy to invite you to submit a revised manuscript. As detailed in your point by point response, your revised manuscript should incorporate the changes suggested by the Reviewers.

In addition, I think it would help readers if you could include a map of precipitation changes at the LIG as simulated by the AWI and EC-Earth models (since the analysis focuses on these models) over a larger area than the one currently shown in all the figures (ie extending to the western Mediterranean), so as to provide some additional context to the study. I note that Fig. 1 includes a smaller area than all the other figures.

Response: Thank you very much for your comment. We have added an additional panel to Fig. 1 showing the annual mean rainfall distribution across the Mediterranean and North Africa. This provides a clearer context regarding present-day precipitation amounts in the study area. The purpose of the additional panels is to highlight the key synoptic systems that control precipitation in the Levant. We therefore focused on these systems to ensure that the figure is informative even for readers who may be less familiar with the regional circulation patterns.

Please also note that the Last Interglacial was from about 129 to 116ka, and not until 80ka. Since your analysis focuses on lig127k experiments, the comparison with proxy data should focus on that time period (ie LIG peak).

If you want to state in the manuscript that the "AWI-ESM model best reproduces the patterns inferred from the proxy records", then you have to show that this is the case. At the moment, while figure 1 shows the location of some proxy records, there is no details as to what these proxy records suggest. Related to my comment above, a model-proxy comparison of the extended Levant region (ie North Africa) should be included. Looking forward receiving your revised manuscript.

Response: Thank you for this helpful comment. We have made several clarifications in Section 1.2 ("Proxy-based hydroclimate reconstruction of the Last Interglacial"), where we describe the proxy records and explain how they indicate increases in both precipitation amount and intensity, particularly during the peak of the Last Interglacial. We also added a summary at the end of the section to synthesize the implications derived from the proxy evidence.

In Fig. 1, we show only the proxy records discussed in this section and throughout the manuscript. While additional datasets exist, including them would extend beyond the scope of this introductory overview, whose purpose is to present the general picture emerging from the most relevant proxies. The comparison between proxy evidence and model simulations is presented later in Section 3.1 ("Evaluating PMIP4 models concerning proxies and reanalysis"), where we discuss the consistency between reconstructed and simulated climate signals.

