

Interactive comment on “A regional climate palaeosimulation for Europe in the period 1501–1990 – Part II: Comparison with gridded reconstructions” by J. J. Gómez-Navarro et al.

Anonymous Referee #1

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General comments The manuscript is an interesting comparison between climate model simulations and gridded reconstructions based on proxy data. It helps to analyze the advantages and problems inherent to both, models and reconstructions. My recommendation is to accept with minor modifications.

Specific comments 1) The authors present in the manuscript results corresponding to winter (DJF) and summer (JJA). What about spring and autumn? The behavior of rainfall in these seasons is particularly interesting, mainly in Mediterranean areas. 2) According to the authors “the physical interpretation of EOFs has to be performed with caution” (page 316, lines 20-21). Although there is not a common criterion on its convenience, rotation technique produces compact patterns, less sensitive to the dis-

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tribution of observing locations, and statistically more stable than conventional EOFs (von Storch and Zwiers, 2001). Have the authors performed this analysis, using, for instance, the widely used Varimax method? 3) “The nine regions in Fig. 1 defined according to geographical criteria. . .” (page 320, line 25). What criteria? It is misleading to consider, for instance, the Iberian Peninsula as an unique region, in particular in relation to rainfall regime, with clear differences between the Mediterranean coast, northern coast and western-central area. I suppose that this problem may appear in other European areas. This regionalization is arbitrary, and may mask results on trends and variability (Figures 2 and 3) in both, simulations and reconstructions.

Technical corrections Figures 2 and 3 are not clear. I suggest to enlarge these figures. Now, it is difficult to see the comparison discussed by the authors, except the situations of over and/or subestimation.

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