

Interactive comment on “The East Asian summer monsoon at mid-Holocene: results from PMIP3 simulations” by W. Zheng et al.

W. Zheng et al.

zhengwp@mail.iap.ac.cn

Received and published: 28 September 2012

We thank the reviewer for the thoughtful comments and we will make appropriate revision regarding these comments.

- 1) The discussion for the difference between PMIP2 and PMIP3 models will be reorganized and we will try to add more insightful analysis.
- 2) We think that the vegetation may play a role for the underestimation of surface air temperature. But it is not obvious in PMIP2 model studies (e.g. Braconnot et al. 2007, Jiang et al. 2012). So we will reconsider the statement based on further analysis.
- 3) The larger inter-model differences in PMIP3 models may result from their different behaviors in simulating the change of precipitation along the lower reaches of Yangzi

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river. Some models simulate three cores pattern for the precipitation change (+, -, + from the south to the north China), while some others show larger changes in the northern China but smaller or negative change in the south. We will check again the behaviors of PMIP2 models in different region of eastern China and revise the discussion.

4) The persistent of rainbelt around 10°N in Fig. 3 are also related with the tropical climate and weather systems, which can influence the southern part of Eastern China during boreal summer and fall. The stepwise meridional displacement is often referred to the monsoon rainbelt movement over the land of eastern China that can be seen between 20°N and 40/45°N.

5) For the PMIP2 range, the outliers are not excluded. We will revise the statement and compare them by the same criterion.

6) other comments and technical matters will be corrected in the revision.

Interactive comment on Clim. Past Discuss., 8, 3251, 2012.