Review: Monsoonal response to mid-holocene orbital forcing in a high resolution GCM

Comments to Authors: Accept, Minor revisions

General comments

This paper addresses an important topic on how the global monsoon may have been responded to the orbital forcing during the mid-Holocene using a high resolution atmosphere–ocean general circulation model. The present results provide more details of the spatial pattern of climate response to the mid-Holocene forcing, as previous simulations are generally performed with coarse resolution GCMs. Besides, I like their attempt to understand and explain the dynamic mechanisms behind the changes, not just the changes themselves. Overall, the study is well-done and deserving of publication, but I do make the following comments or suggestions:

Specific comment

Many simulations have been undertaken to address the mid-Holocene monsoon changes. The advantage of this study lies in your climate model, i.e. a high resolution GCM, which may provide more information on the picture and the underlying mechanism of the mid-Holocene global monsoon changes. In this sense, you should compare the present results with those from the earlier PMIP1 and PMIP2 simulations in more detail. I suspect that most readers will be more interested in what is new knowledge on the mid-Holocene monsoon change from your study. For example, the mid-Holocene minus pre-industrial changes should be added in Figs. 6a, 9a, and 12a, and corresponding discussions or comparisons should be added in the text.

Minor comments

P3L10–12: This statement is only appropriate for the orbital time scale. “on the orbital time scale” should be added in this sentence.

P27L16–18: The authors are “Wang, T., Wang, H. J., and Jiang, D.:”, as the family and given names have been reversed in their original paper.

Signed review: Dabang Jiang