

## ***Interactive comment on “Modeling the climatic implications of the Guliya $\delta^{18}\text{O}$ record during the past 130 ka” by D. Xiao et al.***

**D. Xiao et al.**

xiaodong@cma.gov.cn

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National Meteorological Information Center

46 Zhongguancun South Street

Beijing 100081, China

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Dear Dr. Hans Renssen,

According to the comments and suggestions from you and the reviewers, we have carefully revised our manuscript, entitled “Modeling the climatic implications and indicative senses of the Guliya  $\delta^{18}\text{O}$  temperature record to the ocean-atmosphere system during

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the past 130 ka” by Xiao, Zhao, Wang, and Zhou.

In this modified manuscript, we reorganized the research motivation in the introduction to make it clearly be presented, and rewritten the Section 3 to compare the simulated SAT and  $\delta^{18}\text{O}$  of Gulya in detail. We also increased a Figure, showing the annual cycle of incoming solar radiation anomaly, to explain the variation of surface air temperature (SAT) in Section 3. The influences of precession and obliquity cycles on the two anomalous patterns in SAT and sea surface temperature are discussed detailedly in Section 4.1. The detailed specific changes are described in our replies to the reviewers and the revised manuscript. Moreover, we have improved the manuscript's presentation.

We thank you and the reviewers very much for your valuable comments and suggestions, which have helped us to improve our manuscript. We look forward to hearing further from you.

Sincerely yours,

Ping Zhao

Tel: 86-010-68408149

Fax: 86-010-62173225

Email: zhaop@cma.gov.cn

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