

Interactive comment on “Climate evolution across the Mid-Brunhes Transition” by Aaron M. Barth et al.

Anonymous Referee #2

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Aaron M. Barth et al, present an interesting study and well written manuscript, but the large number of figures (17 figures) make the reading difficult. This work addresses a statistical characterization of changes occurring during Mid-Brunhes Transition (MBT) over the last 800kyr. This work is based on already published data of SST, benthic $\delta^{13}C$ and dust records from Atlantic, Pacific and Indian Ocean. The main proposal of this work is to demonstrated that MBT is a global event. However the representability of the selected recorded in order to discuss global /regional patterns is not clear. There are several record, some of them on North Atlantic that they show different pattern at least on SST trend and warmer interglacial are record on pre-MBT interval as also was mentioned on previous review papers (Pages, 2016). So should be very interesting to analyze the differences observed on these patterns and clear define what the global

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concept is, if it is the patterns similar with the Ice core records or the regional forcing are always imprinted on our climate records. It would be good to add in the introduction a few sentences to explain why it was selected these sites. Special focus was been done on MIS 14 and 13 and the interconnections between strong Asian monsoon on MIS 13 and the followed weak glaciation MIS14, however this assumption does not take in account the ventilation and the changes in the $\delta^{13}C$ on North Atlantic during this interval as also involved on the main changes at the CO_2 and SST pattern. As the major comments on the manuscript I consider that would be good to add other sites and integrated different patterns on this global concept.

Pages, P.I.W.G.o., 2016. Interglacials of the last 800,000 years. *Reviews of Geophysics* 54, 2015RG000482.

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