



Paleoclimate constraints on forecasts of future climate change.

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As we go further back in time, information on climate variables becomes more sparse and less certain. Despite this, the information about past climate changes is surely vital if we are to trust our climate model forecasts of future climate changes, as it opens up the possibility of evaluating the response of climate models to changes in radiative forcing and other boundary conditions. We have shown that climate models do have skill in modelling paleoclimates, at least for large climate changes and on large scales. Given this, we can ask whether it is possible to use paleoclimate data to improve the forecasts of future climate. I will discuss these questions using model results and data from the PMIP intervals of the mid-Holocene (6ka), Last Glacial Maximum (21ka) and mid Pliocene Warm Period (3Ma).