PMIP WG - Past2Future: insights from a constantly varying past

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Group description

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The P2F challenge: to use paleoclimate information to improve predictions of climate change
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Paleoclimate modellers have for many years argued the importance of paleoclimate simulations as a means of increasing understanding of the climate system. However, it is only since the fifth iteration of the climate model inter-comparison project (CMIP5) that simulations of paleoclimates have been officially included. This endeavour created the first coherent ensemble of climate models run for past climates, recent historical, control and future scenarios. For CMIP6, the number of paleoclimate intervals has been expanded (to include Pliocene, Eemian, Last glacial maximum, mid Holocene and Last Millennium) and all model versions used must also run increased carbon dioxide and historical simulations, enabling us to to move towards consideration of patterns of climate change and modes of variability in past and future as well as continuing the well established focus relating to global climate change.

This working group seeks to help climate scientists make the best use of existing models runs and observations from paleoclimates, so that they may better use past climate information from models and data to learn about future climates.

This working group was created by merging two PMIP3 WG:

- Past to Future
- PaleoVAR (Variability and Mean State)

The aim of the merger is to encourage researchers to look across multiple past and future climates in the PMIP ensemble. This is something that is especially useful for modes of variability, where the behaviour in future projections is often poorly constrained.