

PMIP4 simulations: what is new?

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The Paleoclimate Modeling Intercomparison Project (PMIP) enters its fourth phase. Five PMIP periods have been retained for tier one simulations as part of CMIP6 (coupled model intercomparison project, phase 6): the last millennium, the mid-Holocene (6ka BP), the Last Glacial maximum (21ka BP), the Last Interglacial (127ka BP) and the Pliocene (3 Ma BP). The talk will review the rationale behind these simulations and highlight what would be needed from the paleoclimate community to fully benefit from this huge simulation effort. The discussion will also discuss how this suite of PMIP4CMIP6 experiments is connected to several other periods and sensitivity experiments as part of PMIP. I propose to illustrate some of the new challenges that can now be tackled to improve the understanding of the rate of climate change, major feedbacks and the interplay between climate trends and climate variability