

Design for the last Interglacial (at 127 ky BP) run

You will find on this page information about the experiment design for the PMIP4 [last Interglacial \(at 127 ky BP\)](#) experiment.



Please make sure to read the [Associated publication](#) before setting up your experiments or using the output data, and read any *how-to* sections associated with specific boundary conditions.

Get in touch with the following people if you have questions:

Bette Otto-Bliesner	Scientific questions
Jean-Yves Peterschmitt	Technical questions or missing data

Associated publication

The PMIP4 contribution to CMIP6 - Part 2: Two Interglacials, Scientific Objective and Experimental Design for Holocene and Last Interglacial Simulations, Otto-Bliesner et al, GMD, under review [doi:10.5194/gmd-2016-279](https://doi.org/10.5194/gmd-2016-279)

Specifications

	PMIP4-CMIP6 specifications
PMIP4-CMIP6 name	lig127k
Astronomical parameters	eccentricity = 0.039378 obliquity = 24.04° perihelion-180° = 275.41° Date of vernal equinox : March 21 at noon
Trace gases	CO₂ = 275 ppm CH₄ = 685 ppb N₂O = 255 ppb CFC = 0 O₃ = same as in CMIP6 piControl
Solar activity	Same as in CMIP6 piControl (TSI = 1360.747 W.m-2)
Ice sheets	Same as in CMIP6 piControl
Topography and coastlines	Same as in CMIP6 piControl
Volcanic activity	Same as in CMIP6 piControl

	PMIP4-CMIP6 specifications
Aerosols	Modified sources, atmospheric concentrations or radiative forcing, depending on model complexity and model configuration used for DECK and historical experiments cf. documenting papers: Otto-Bliesner et al, in prep and Kageyama et al, subm. Access to data
Vegetation	Depending on model complexity and model configuration used for DECK and historical experiments: Interactive vegetation or Interactive carbon cycle (LAI) or Prescribed to present-day values or lig127k values computed from off-line vegetation model The methodology to represent vegetation should be the same as for the CMIP6 piControl simulation cf. documenting papers: Otto-Bliesner et al, in prep and Kageyama et al, subm.

Collaboration

- The PMIP4-CMIP6 **lig127k** simulation is being coordinated with [ISMIP6](#). The output from the lig127k simulation will be used by ISMIP6 to force standalone ice sheet experiments (*lastInterglacialforcedism*). This will increase our understanding of the sensitivity of the ice sheets, complementing the suite of standalone ISMIP6 ice sheet experiments.
- The PMIP4-CMIP6 **midHolocene** and **lig127k** simulations are also expected to be relevant to analyses in [SIMIP](#)'s assessment of the role of sea-ice changes in climate changes and [AerChemMIP](#)'s assessment of the role of dust

Sensitivity experiments

Sensitivity to Prescribed Vegetation

Sensitivity to Prescribed Ice Sheets

Simulation to explore the effects of the H11 event

From:

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Last update: **2017/02/01 15:49**

