

# Design for the mid-Holocene run

You will find on this page information about the experiment design for the PMIP4 [mid-Holocene](#) 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:

<a href="#">Pascale Braconnot</a>	Scientific questions
<a href="#">Jean-Yves Peterschmitt</a>	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	<b>midHolocene</b>
Astronomical parameters	<b>eccentricity</b> = 0.018682 <b>obliquity</b> = 24.105° <b>perihelion-180°</b> = 0.87° <b>Date of vernal equinox</b> : March 21 at noon
Trace gases	<b>CO<sub>2</sub></b> = 264.4 ppm <b>CH<sub>4</sub></b> = 597 ppb <b>N<sub>2</sub>O</b> = 262 ppb <b>CFC</b> = 0 <b>O<sub>3</sub></b> = 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
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. <a href="#">Access to data</a>

	PMIP4-CMIP6 specifications
Vegetation	<p>Depending on model complexity and model configuration used for DECK and historical experiments: Interactive vegetation <b>or</b> Interactive carbon cycle (LAI) <b>or</b> Prescribed to present-day values or mid-Holocene 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.</p>

## Collaboration

- 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

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