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Design for the LGM run

You will find on this page information about the experiment design for the PMIP4 Last Glacial Maximum experiment.



Please make sure to read the Associated publications 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:

Masa Kageyama	Scientific questions
Jean-Yves Peterschmitt	Technical questions or missing data

Associated publication

Kageyama et al, in prep

Specifications

	PMIP4-CMIP6 specifications			
PMIP4-CMIP6 name	lgm			
Astronomical parameters	eccentricity = 0.018994 obliquity = 22.949° perihelion-180° = 114.42° Date of vernal equinox : March 21 at noon			
Trace gases	$CO_2 = 190 \text{ ppm}$ $CH_4 = 375 \text{ ppb}$ gases $N_2O = 200 \text{ ppb}$ $CFC = 0$ $O_3 = \text{ same as in CMIP6 piControl}$			
Solar activity	Same as in CMIP6 piControl			
Ice sheets	Modified Access to data			
Topography and coastlines	Modified Access to data			
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: Kageyama et al, in prep and Kageyama et al, subm. Access to data			

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	PMIP4-CMIP6 specifications
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 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: Kageyama et al, in prep and Kageyama et al, subm.

Generating the boundary conditions

The scripts used for generating the LGM boundary conditions for the IPSL model, following the steps detailed in the *Kageyama et al* paper, can be dowloaded from

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