

Open call for membership of the Task Team on Climate Forcings for CMIP7

Climate forcings play a key role in the definition of exogenous drivers of ongoing climate change. As such, they are an integral part of the definition of historical, future scenario and idealised simulations. The CMIP6 forcings include emissions (CO₂, aerosol, and ozone precursors from anthropogenic and biomass burning sources), concentrations (CO₂ and other long-lived greenhouse gases, aerosols, ozone), volcanoes (emissions and concentrations), land-use/land cover change, ocean and atmosphere boundary conditions for atmosphere and ocean experiments respectively, in addition to numerous other climate forcing agents. We expect that, due to the expanding complexities of Earth System Models to represent more processes explicitly, the required forcing agents will broaden for CMIP7. As model configurations continue to target higher and higher spatial resolution, additional expansion of temporal and geographical resolutions may be required.

Desired experience

We are seeking applications from community members, with an interest in climate forcing. Ideally, applicants will have experience in the generation of forcing datasets or in the use of these datasets to drive model simulations. Experience with the existing CMIP6 forcing datasets, and an interest in being involved in the generation and testing of forcing datasets for CMIP7 is preferred.

Task Team Objectives

The purpose of this task team is to:

1. Evaluate the CMIP6 forcing collection and identify issues, coverage gaps or omitted fields (e.g., natural, not anthropogenic, CH₄ emissions).
2. Identify next generation forcings for current and future generations of Earth System models.
3. Work with teams to deliver them.
4. Coordinate with modelling groups to perform evaluation and generate simulations using the newly generated/updated forcing datasets

Coordination with other CMIP TT, WCRP activities and wider stakeholders

This Task Team will be coordinating closely with the various Model Intercomparison Projects (MIPs) to ensure consistency between the experimental design and the required forcings. The WCRP Lighthouse Activity Explaining and Predicting Earth System Change ([EPESC](#)) and

Coordinated Regional Downscaling Experiment (CORDEX) will also be important stakeholders.

Time commitment

Meetings are expected to take place regularly, every 2-3 months, and more frequently as required and at the discretion of the TT Leads. There may be times when there is more or less work depending on the activities undertaken (e.g., a peak period may be associated with a workshop or paper published by the TT). TT members are expected to commit appropriate time to this activity, at around 5-10% FTE. Most meetings will be online, with some out-of-hours working required to the challenges of time zone coordination. It is envisioned that the initial commitment to this TT will be around 18 months.

Remuneration

These are not paid roles.

How to apply

Applications should be submitted via [this form](#) before 18:00 UTC on 2nd October 2022.

Contact and further information

The points of contact for this TT are Paul Durack (durack1@lnl.gov) and Jean-François Lamarque (lamar@ucar.edu). Please contact the CMIP-IPO (cmip-ipo@esa.int) if you have any questions or require further information.