

## RCEMIP MODEL DOCUMENTATION FORM

Please fill out the below with the relevant information for the model simulations you are submitting to RCEMIP. If you are submitting multiple sets of simulations from multiple versions or configurations of a model, please fill out a documentation form for each.

### Your information

Your Name: \_\_\_ Romain Roehrig

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### Model information

Model Name/Version: \_ CNRM-CM6-1

Model Name Abbreviation (\$MDL used in upload to DKRZ Cloud): \_ CNRM-CM6-1

Citation for model:

Roehrig, R. et al. 2019: Atmospheric component of the CNRM Climate Model CNRM-CM6-1: ARPEGE-Climat Version 6.3. In preparation.

Voltaire, A. et al., 2019: Evaluation of CMIP6 DECK experiments with CNRM-CM6-1. In preparation \_\_\_\_\_

### Model dynamical core

Type of grid (cartesian, spherical): \_ Gaussian grid

Dynamical core (e.g. finite volume): \_ Spectral + two-time-level semi-lagrangian semi implicit scheme

Time step: \_ 900 s

### Grid information

RCE\_small, number of grid points: \_ 1D simulation

RCE\_small, horizontal grid spacing: NA

RCE\_large, number of grid points: \_ 24572 (reduced Gaussian grid); 128\*256 (lat x lon regular Gaussian grid)

RCE\_large, horizontal grid spacing: \_ 150 km

Number of vertical levels: 91

Vertical levels: \_ hybrid

Sponge layer: \_ NA

### Physics packages (fill out all applicable)

Radiation scheme: \_ RRTM for LW, Fouquart and Bonnel (1980) for SW

Microphysics scheme: \_ 1-moment, Lopez (2002, QJRMS)

Boundary layer scheme: TKE 1.5 order, Cuxart et al. (2000, QJRMS)

Convection scheme: \_ Piriou et al. (2007, JAS), Guérémy (2011, Tellus)

Sub-grid scale turbulence scheme: \_ See boundary layer

Other: \_\_\_\_\_

Other models-specific settings or parameters (beyond the specified RCEMIP parameters):

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