

http://es-doc.org

Mission

Nurture a standards based ecosystem in support of earth system modelling documentation creation, analysis & dissemination.



Strategic Relevance

EXA-Scale search enhancement

IPCC reports generation

Model inter-comparison

Realtime simulation documentation



Funders

IPSL (EU)
NOAA (US)
EX-ARCH (G8)
ISENES-2 (EU)



Pl's

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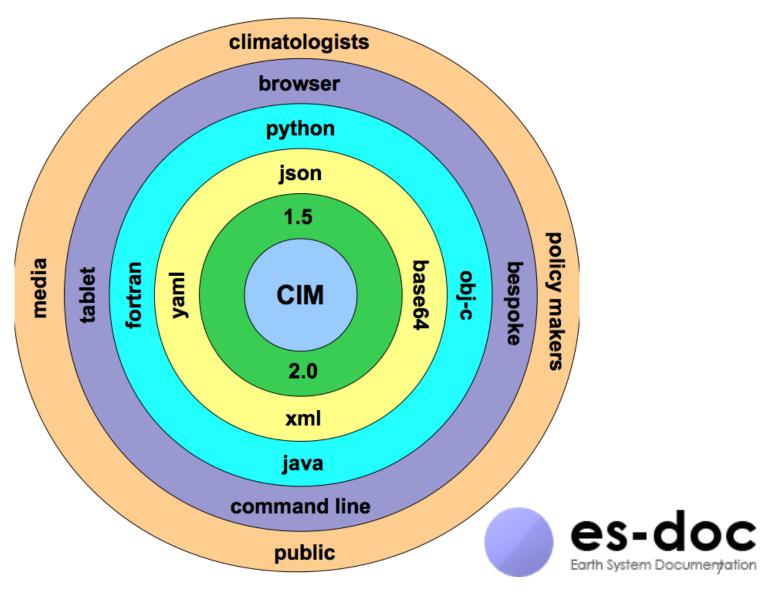


Core Team

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Eco-System



Modus Operandi

Soft	Hard
Process	Online Tools
Services	API

Process

Transparent Documented **Iterative** Sustainable International Continuos



Services

Engage scientific community Nurture standards, e.g. CIM Advocacy Governance Dissemination Outreach



Tools

Create Search View Compare Visualize





Documentation Search v0.9.0.3

Support

 Doc Type :
 Doc Version :
 Project :
 Institute :
 Model :
 Experiment :

 Model
 ♦
 Latest
 ♦
 CMIP5
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Model	♦ Latest	\$ CMIP5	†
Search returned	42 of 107 records in 0.087s	1 2	3
Institute	Short Name	Long Name	json
BCC	BCC-CSM1.1	Beijing Climate Center Climate System Model version 1.1	json
CMCC	CMCC-CESM	CMCC Carbon Earth System Model	json
CMCC	CMCC-CM	CMCC Climate Model	json
CMCC	CMCC-CMS	CMCC Climate Model with a resolved Stratosphere	json
CNRM-CERFACS	CNRM-CM5	CNRM-CM5	json
CSIRO-BOM	ACCESS1.0	ACCESS1.0	json
CSIRO-BOM	ACCESS1.3	ACCESS1.3	json
CSIRO-QCCCE	CSIRO-Mk3.6.0	CSIRO Mark 3.6.0	json
EC-EARTH	EC-EARTH	EC-EARTH	json
INM	INM-CM4	inmem4	json
INPE	HadGEM2-ES	Hadley Global Environment Model 2 - Earth System	json
IPSL	IPSL-CM5A-LR	IPSL-CM5A-LR;atmosphere:LMDZ5A(95x96L39);ocean:NEMOv3.2 (OPA-LIM-PISCES,149x182L31)	json
IPSL	IPSL-CM5A-MR	IPSL-CM5A-LR;atmos:LMDZ5A(144x143L39);ocean:NEMOv3.2(OPA-LIM-PISCES,149x182L31)	json
MIROC	MIROC4h	MIROC4h	json
MIROC	MIROC5	MIROC5	json
монс	HadCM3	HadCM3 (2000) atmosphere: HadAM3 (N48L19); ocean: HadOM (lat: 1.25 lon: 1.25 L20); land-surface/vegetation: MOSES1;	json
MOHC	HadGEM2-A	Hadley Global Environment Model 2 - Atmosphere	json
монс	HadGEM2-CC	Hadley Global Environment Model 2 - Carbon Cycle	json
монс	HadGEM2-ES	Hadley Global Environment Model 2 - Earth System	json







Overview Citations Contacts Components

Atmosphere

Convection Cloud Turbulence

Cloud Scheme

Cloud Simulator

Dynamical Core

Advection

Orography & Waves

Radiation

Land Surface

Albedo

Carbon Cycle

Vegetation

Energy Balance

RiverRouting

Snow

Soil

Heat Treatment

Hydrology

Vegetation

Ocean

Advection

Boundary Forcing

Tracers

Lateral Physics

Momentum

Tracers

Up & Low Boundaries

Vertical Physics

Interior Mixing

Mixed Layer

Atmosphere

Overview

The atmospheric general circulation model LMDZ5A is based on a finite-difference formulation of the primitive equations of meteorology (Sadourny and Laval, 1984) on a staggered and stretchable longitudelatitude grid (the Z of LMDZ standing for Zoom). Water vapor, liquid water and atmospheric trace species are advected with a monotonic second order finite volume scheme (Van Leer, 1977; Hourdin and Armengaud, 1999). In the vertical, the model uses a classical so-called hybrid sigma-pressure coordinate. In the LMDZ5A version, (Hourdin et al. 2012) the physical parametrization are very close to that of the previous LMDZ4 version used for CMIP3. The radiation scheme is inherited from the European Center for Medium-Range Weather Forecasts. The dynamical effects of the subgrid-scale orography are parametrized according to Lott (1999). Turbulent transport in the planetary boundary layer is treated as a vertical eddy diffusion (Laval et al, 1981) with counter-gradient correction and dry convective adjustment. The surface boundary layer is treated according to Louis (1979). Cloud cover and cloud water content are computed using a statistical scheme (Bony and Emanuel, 2001). For deep convection, the LMDZ5A version uses the "episodic mixing and buoyancy sorting" scheme originally developed by Emanuel (1991). With respect to the previous LMDZ4 version, the number of layers has been increased from 19 to 39, with 15 levels above 20km and a top at about the same altitude as the stratospheric LMDZ4-L50 version (Lott et al, 2005). The horizontal has also changed, with an increased number of point in latitude to shift the jets poleward (Guernas and Codron 2011). At Low Resolution (LR), the LMDZ5A model has 95x96 points in latitude and longitude corresponding to a resolution of 1.875° ×3.75°.

Properties

Basic Approximations : Hydrostatic

Basic Approximations: Primitive Equations

Model Family: AGCM

Orography > Orography Type : Present-Day

Top Of Atmos Insolation > Impact On Ozone : Yes

Top Of Atmos Insolation > Orbital Parameters > Computation Method : Berger 1978

Top Of Atmos Insolation > Orbital Parameters > Reference Date : 2000

Top Of Atmos Insolation > Orbital Parameters > Type : Fixed

Top Of Atmos Insolation > Solar Constant > Type : Fixed

Top Of Atmos Insolation > Solar Constant > Value: 1366.0896



Help

Reset

Next



1. Select Models	All 🗌	2. Se
ACCESS1.0	view	Aer
ACCESS1.3	view	
BCC-CSM1.1	view	
CFSV2-2011	view	
CMCC-CESM	view	Atn
смсс-см	view	
CMCC-CMS	view	
CNRM-CM5	view	
CSIRO-MK3.6.0	view	
EC-EARTH	view	
GFDL-CM2P1	view	
GFDL-CM3	view	
GFDL-ESM2G	view	Atn
GFDL-ESM2M	view	
GFDL-HIRAM-C180	view	
GFDL-HIRAM-C360	view	
GISS-E2-H	view	
GISS-E2-H-CC	view	
GISS-E2-R	view	
GISS-E2-R-CC	view	Lan
GISS-E2CS-H	view	
GISS-E2CS-R	view	
HADCM3	view	
HADGEM2-A	view	
HYDGEM3-CC	vious	

2. Select Components	υN
Aerosols	••
Emission And Concentration	••
Model	••
Transport	••
Atmosphere	••
Convection Cloud Turbulence	••
Cloud Scheme	••
Cloud Simulator	•
Dynamical Core	••
Advection	••
Orography And Waves	••
Radiation	••
Other	•
Atmospheric Chemistry	•
Emission And Conc	
Gas Phase Chemistry	•
Heterogen Chemistry	•
Stratospheric Heter Chem	•
Tropospheric Heter Chem	•
Photo Chemistry	•
Transport	•
Land Ice	•
Glaciers	•
Sheet	•
Ice Sheet Dynamics	•
Shelves	•
Dynamice	

3. Select Properties	All
Aerosol Scheme	
Bin Framework	
Bin Species	
Bulk Species	
Framework	
Modal Framework	
Modal Species	
Scheme Characteritics	
Scheme Type	
Species	
Coupling With	
Gas Phase Precursors	
ocean biogeochemical coupling	
Processes	
Standard Properties	
Citations	
Location	
Title	
Description	
Long Name	
PI Email Address	
PI Name	
Short Name vegetation model coupling	

API

Publish
Search
Compare
Visualize
Validate
Transform



API Client

(pyesdoc)

I/O
Parsing
Publish
Search
Serialisation
Validate