

LMDZ Training January 2026



**Welcome to the LMDZ January 2026
training session**

Information link :

https://lmdz.lmd.jussieu.fr/utilisateurs/formation/winter_2026

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Tuesday 13th January:

- 9:00 - 9:15 Registration and coffee
- 9:15 - 9:30 This introduction (L. Fairhead)
- 9:30 - 10:15 General presentation to LMDZ (F. Hourdin)
- 10:15 - 10:45 Students presentation (1 slide for each)
- 10:45 - 11:00 **Coffee break**
- 11:00 - 12:15 Installing the model, Code structure. Tutorial 1 (I. Musat, L. Fairhead)
- 12:15 - 12:45 Input files (L. Guez)
- 12:45 - 14:00 **Lunch**
- 14:00 - 14:30 Outputs (A. Idelkadi)
- 14:30 - 17:30 Tutorial 1

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Wednesday 14th January :

- 9:00 - 10:30 Model physics, part I: (F. Hourdin et al)
- 10:30 - 11:00 LMDZ1D (E. Vignon)
- 11:00 - 11:20 Coffee break
- 11:20 - 12:45 Dynamics: grid / temporal discretization / stability / dissipation (E. Millour)
- 12:50 - 14:00 Lunch
- 14:00 - 17:30 Tutorial N°2: Presentation (A.Sima), mandatory part
+ 1D + nudging + ORCHIDEE + tracers
+ aerosols + parallel + XIOS +ICOLMDZ

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Thursday 15th January :

- 9:00 - 9:25 Parallelism (E. Millour)
- 9:25 - 10:15 Atmosphere/surface interface (F.Chery)
- 10:15 - 10:35 **Coffee break**
- 10:35 - 11:05 Aerosols (A. Sima / L. Guez)
- 11:05 - 12:45 Model physics, part II: (J.-B. Madeleine et al)
- 12:45 - 14:00 **Lunch**
- 14:00 - 14:30 Code ecosystem (L. Fairhead)
- 14:30 - 16:00 LMDZ configurations: uses and tuning (F. Hourdin)
- 16:00 - 17:00 Final questions and comments

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Frédéric Hourdin
Chercheur CNRS
physics / configurations



Laurent Farnaud
Ingénieur CNRS
code / environment



Ionela Musat
Ingénieure CNRS
installation



Lionel Guez
Ingénieur CNRS
inputs/forcings,
aerosols



Abderrahmane Idelkaki
Ingénieur CNRS
outputs

Who are we ?



Jean-Baptiste Madeleine
Enseignant Chercheur SU
physics



Etienne Vignon
Chercheur CNRS
1D



Ehouarn Millour
Ingénieur CNRS
Dynamics/parallelism



Adriana Sima
Ingénieure CNRS
Tutorials, aerosols



Frédérique Cheruy
Chercheur CNRS
Atmosphere/surfaces
interface

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Who are you ?

30 participants including 10 PhDs, 8 postdocs, 6 researchers, 4 engineers, 1 Msc, 1 intern

Where are you from: LSCE, LMD, LOCEAN, LATMOS, IPSL, ENS, INRAE, private, EPFL (CH), Morroco

19 of you “don't currently use LMDZ”.

Your interests

Multiple : monsoon during the Holocene, midlatitudes winter storms, bias corrections in a coupled model, statistical downscaling using deep learning methods, use of LMDZ outputs as inputs to the GRISLI ice-sheet model / coupling LMDZ with GRISLI, evaluation and representation of Antarctic clouds, process-oriented evaluation of cloud microphysics, use of LMDZ in courses, greenhouse gases inversion, improving the contrail parameterization in the LMDZ model, compare LMDZ simulations to NAWDIC observed data, transport model simulated tracers (CO₂, SF₆, Rn222) comparison, LMDZ evaluation with the ground based radar instruments of the AWACA project, Étude de l'impact de la dynamique atmosphérique petite échelle sur la propagation des infrasons en lien avec des événements explosifs, coupling dynamic spectral snow albedo, LMDZ-INCA for global inversion, global-scale climate simulations of the Holocene, simulations of solar geoengineering, Isotope-enabled LMDZ focussing over Antarctica and other polar regions, Modelling of the transport of solid aerosols, Coupling with ORCHIDEE

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Practical details

Lunch : taken in the university cafeteria, we'll provide you with tickets

Coffee breaks : available in room next door.

For PhD students: we can provide you a certificate of attendance

Information link :

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mattermost channel : «sos-lmdz» on LMDZ mattermost for all your LMDZ help needs:

link : <https://mattermost.lmd.ipsl.fr/lmdz/channels/sos-lmdz>