LMDZ Training December 2024

Welcome to the LMDZ December 2024 training session

Information link :
https://lmdz.lmd.jussieu.fr/utilisateurs/formation/winter_2024/

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Tuesday 10th December :

- 9:00-9:15 Registration and coffee
- 9:20-9:30 This introduction (L. Fairhead)
- 9:30-10:15 General presentation to LMDZ (F. Hourdin)
- 10:15-10:45 Students presentation (1 slide for each)
- 10:45-11:05 Coffee break
- 11:05-12:20 Installing the model, Code structure. Tutorial 1 (I.Musat, L. Fairhead)
- 12:20-12:50 Input files (L. Guez)
- 12:50-14:00 Lunch
- 14:00-14:30 Outputs (A. Idelkadi)
- 14:30-17:30 Tutorial 1

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Wednesday 11th December :

- 9:00-9:300 Code ecosystem (L. Fairhead)
- 9:30-11:00 Model physics, part I: (F. Hourdin et al)
- 11:00-11:20 Coffee break
- 11:20-12:45 Model physics, part II: (J.-B. Madeleine et al)
- 12:50-14:00 Lunch
- 14:00-17:30 Tutorial N°2: Presentation (A.Sima), mandatory part
  + 1D + nudging + ORCHIDEE + tracers
  + aerosols + parallel + XIOS

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Thursday 12th December :

- 9:00-10:40 Dynamics: grid / temporal discretization / stability / dissipation (E. Millour)
- 10:40-11:10 LMDZ1D (E. Vignon)
- 11:10-11:30 Coffee break
- 11:30-12:20 Atmosphere/surface interface (F.Cheruy)
- 12:20-12:45 Parallelism (E. Millour)
- 12:45-13:15 Aerosols (A. Sima / L. Guez)
- 13:15-14:15 Lunch
- 14:15-15:45 LMDZ configurations: uses and tuning (F. Hourdin)
- 15:45-17:00 Practical session

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Frédéric Hourdin
Chercheur CNRS
physics / configurations

[illegible]
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 ?

28 participants including 13 PhDs, 8 postdocs, 5 researchers, 1 engineers, 1 MSc
Where are you from: LSCE, LMD, IPSL, LATMOS, Grenoble, USA, Canada
21 of you “don't currently use LMDZ”.

Your interests

Multiple : snow modelisation for ice sheets in Orchidee, developping a squall line parameterization, métriques pour le cycle de l'eau en Antarctique, Venus history and exoplanets, the memory of the world’s trees, coupling a regional version of LMDz with a hydrology model of Nouvelle-Aquitaine, quantifiy the climate forcing change by land use activities, N2O flux inversion, the role of diffusive and diabatic processes in the dynamics of high-latitude depressions, stratospheric chemistry during the Last Glacial Maximum, deep Learning to study climate extremes impacting the power system, reconstructions de températures océaniques du DMGlaciaire, modelling the Alpine climate with online bias-corrected simulations, relationship between atmospheric components's emissions and concentrations, analyses of the water vapor flux over Sahel & Sahara, coupling LMDZ to a 1D ice sheet model, ondes de gravité, Mars, aerosols/cloud interaction, forced simulations with SST anomalies in the Northeastern Tropical Atlantic and analyze the precipitation response

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Practical details

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

Coffee breaks : available in LMD meeting room, 3rd floor, corridor 45-55.
Please no food or beverages in the conference room (or we'll get thrown out)

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

Information link :
https://lmdz.lmd.jussieu.fr/utilisateurs/formation/2024

mattermost channel : «sos-lmdz» on LMDZ mattermost for all your LMDZ help needs:
link : https://mattermost.lmd.ipsl.fr/lmdz/channels/sos-lmdz