Wikiprint Book

Title: 1. Training courses in IPSL modeling tools and environment (modipsl and libIGCM)

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IPSL Training courses

For more information about the trainings, please contact the training team: `platform-training-team@listes.ipsl.fr`

1. Training courses in IPSL modeling tools and environment (modipsl and libIGCM)

The platform group at IPSL Climate Modelling Centre gives a two-day training course (in English) about how to use the IPSL models and the tools to configure and manage them. This training starts with a short general introduction to the model and environment and move quickly to hands on exercises. Participants can choose exercises according to there level and interest. The courses are given at ■IDRIS computing center, in a specific classroom equipped by computers. For hands-on session we have a special allocation on their super computer.

See below for descriptions and materials of the last training class.

Introduction: few slides to introduce the context on IPSL models and tools, and why we use supercomputers.

=> training_slides_2023.pdf■

Hands on exercises: usually, the exercises are done at temporary training account at IDRIS' machine but most of the exercises can also be done at TGCC (irene), IPSL (Ciclad) or LSCE (obelix).

=> training_exercises_2023.pdf■
=> training_exercises_answers_2023.pdf■
=> main_commands_summary_2023.pdf■

Registration in advance to the courses are needed. This is necessary to have entrance access at IDRIS where the courses are given.

How to come to IDRIS
See details here ■http://www.idris.fr/eng/info/contacts/alleridris-eng.html.

1.1. Next training session

The next training will be given in January/February? 2024. It will be possible to register for the two days training either **January 25 & 26** or **February 1 & 2 2024**.
The training will take place at IDRIS in Orsay (91).

You can register here (deadline is January 10, 2024): ■https://lime3-app2.sorbonne-universite.fr/index.php/438174?lang=en
Beware, the number of attendees in each session is limited.

This course is for beginners and advanced users. It will be mostly hands-on sessions that participant could select according to his or her level and interest. The program for these two days is: a general overview of the IPSL environment and tools such as modipsl/libIGCM, and then practicals work about how to launch a simulation, the post-processing step, how to best monitor a simulation, repair errors, verify and redo post-treatment, ensemble of simulation, NEMO model, use of XIOS...

Additional information only when the cours is held at IDRIS:

- The course will be held at IDRIS in Orsay. See here how to access: ■IDRIS ■http://www.idris.fr/eng/info/contacts/alleridris-eng.html.
- The course will be held in english
- The hands on sessions will be done on the IDRIS training computers (login/passwd will be provided during the training).
- Bring your ID card or passport all course days to enter in the IDRIS building. For security reasons, to be allowed to the enter the building you must have to be registered at the course.

1.2. Older training sessions

- 19-20 and 26-27 of January : 2 sessions of the full training (Basic and advances training)
- 11th & 13th ; 14th & 15th of April 2022: Basic and advanced training sessions.
- 29th of January 2021: Basic and advanced on-line training sessions.
- 14th-15th of January 2020: Basic and advanced training sessions.
- 27th-28th of November 2018: Basic and advanced training sessions.

- 29'th of November 2017: Special training on CMIP6 official simulations (running them, controlling them, documenting them on ES-DOC, publishing them on ESGF, handling potential mistakes).
- 28'th of November 2017: basic
- 23'th and 24'th of November 2016 : basic and advanced
- 20'th and 21'th of October 2015 : basic and advanced
- 4'th and 5'th of November 2014 : basic and advanced
- 21'th and 22'nd of May 2014 : basic and advanced courses 1 and 2
- 5'th and 14'th of November 2013 : basic and advanced courses 1 and 2
- 17'th and 18'th of April 2013 : basic course 1
- October 2012 : basic course 1

2. Training courses on IPSL models

In addition to the global environment and tools training sessions, there are specific sessions for each component.

2.1. ORCHIDEE

There is one Orchidee training session per year, usually in January: ■https://forge.ipsl.jussieu.fr/orchidee/wiki/GroupActivities/Training

2.2. LMDZ

There is a one week specific session about the IPSL Atmospheric model LMDZ every December: ■http://lmdz.lmd.jussieu.fr/utilisateurs/formation

2.3. NEMO

There is no official training session for NEMO model but there are every 1 or 2 years the *NEMO users meeting*.
PISCES training course (contact `formation_pisces@locean.ipsl.fr`), next session in October 2022.

3. BOOTCAMP IPSL

Have you just started your PhD and do you easily get lost in front of a terminal? Would you like to learn core tools and become more productive in your research?

In a daily-based climate science work, there exists a wide range of tools used to simplify scientific work. They are well known by the community, but might be not at all for a beginning PhD student. At the same time, supervisors do not usually have time to introduce them to their students ...

The `IPSL Boot camp' pretends to amend this issue. The course will provide a first approach to a bunch of well known and useful tools such as: NetCDF tools (nco, cdo, ncdump...), Python, Ferret, Unix commands, Bash and Shell scripts, Vi and Emacs, Version control (Svn) ... to any one who has never known about them.

A small group of IPSL researchers and engineers will provide a first touch to anyone within the IPSL who might require it. Short tutorials, practical exercises and live coding are the main ingredients of this very first introductory sessions of core tools that can simplify your research work.

3.1. Last training session 24 of March 2016

- All the HandsOn (TP and netcdf files) are available on IDRIS (Ergon) and TGCC (Irene) :
  ${PATH_IGCM_repository}/TRAINING/BOOTCAMP_HandsOn_20160324
- You can download all presentations 20160324_bootcamp_pdf.2.tar■