



**Director:** Vincent Cassé

**Deputy Directors:** Bernard Legras,  
Albert Hertzog, Frédéric Hourdin

**General Secretary:** Stéphane Sportouch

**Total staff:**

147 people (in 2012)

Supervisory structures: École Normale Supérieure,  
École Polytechnique, Université Pierre et Marie Curie,  
Centre National de la Recherche Scientifique

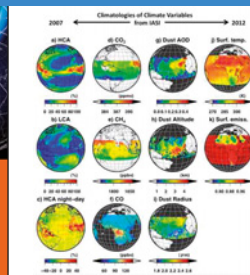
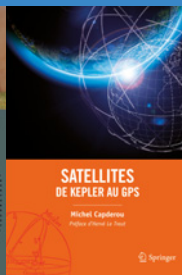
Partner: École des Ponts ParisTech

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<http://www.lmd.jussieu.fr>



**LMD studies climate, pollution and planetary atmospheres  
by combining theoretical approaches, instrumental developments  
for observation and digital models**

### A driving role in the IPSL Federation

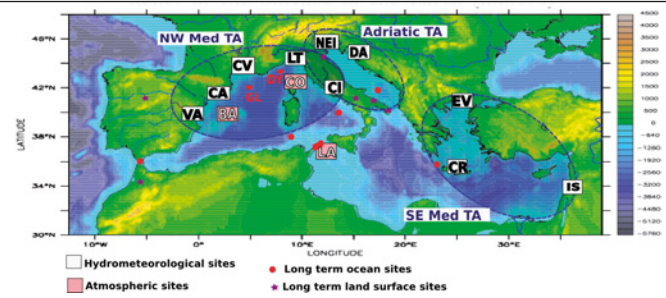
The laboratory is a member of the Pierre Simon Laplace Institute (IPSL), a federation of six public scientific research laboratories in Île-de-France. Within it, LMD plays a driving role in several projects and scientific domains relating to climate modelling, the Sirta observation site at the École Polytechnique, planetology, and servers and databases.

### A space laboratory

LMD has close relations with the CNES (national space research centre). It has built radiative balance measurement instruments and processes data from numerous space missions.

### A diversity of skills

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Laboratoire de Météorologie Dynamique (LMD)

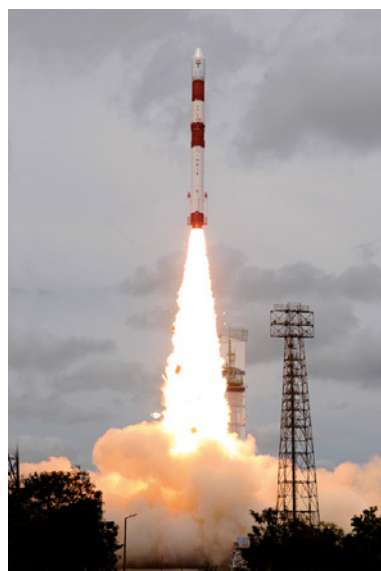
**25 ans de ScaRaB**  
*de la tundra à la mousson*



## 7 primary research fields

LMD is organised into seven scientific teams (plus the administrative team, the IT group and the technical centre):

- **Atmosphere-Biosphere-Climatology** (remote detection) which studies water vapour and carbon dioxide flows using in situ measurements and satellite data.
- **Water and Energy Cycle in the Tropics**, which uses data from geo-stationary satellites, in particular Météosat, and supports the Megha-Tropiques mission.
- **Stratified and Rotating Fluids**, which explores the dynamics of climate, the stratosphere, turbulence and balloon experiments.
- **Interfaces and Troposphere**, which works on atmospheric physics and chemistry, aerosols and clouds.
- **Global Modelling and Climate Change**, which develops physical parameters for LMDz, the atmospheric component of the IPSL's Earth System Model, and studies natural climate variability and the impact on it of human activities..
- **Planetology**, which works on the atmospheres of Mars, Venus, Titan, Triton and Pluto.
- **Climate Variability and Predictability**, a team which works on dynamic systems, data assimilation, predictability, ocean-atmosphere pairing and palaeo-climates.



## Highlights

- Launch of the Megha-Tropiques satellite on October 12, 2011, a joint Franco-Indian project. In partnership with CNES, CNRS and numerous French laboratories
- Discovery of the first habitable exoplanet, Gliese 581d (May 2011)
- Production of digital simulations for the preparation of the next IPCC report

## Find out more

LMD website  
<http://www.lmd.jussieu.fr>