



MSCA

Marie Skłodowska-Curie Actions

*Developing talents,
advancing research*

Postdoctoral Fellowships



CALL FOR APPLICATIONS 2025 – FELLOWS

Supervisor	Sandrine Guerlet
Supervisor page	https://scholar.google.com/citations?user=1nHVsc4AAAAJ&hl=fr
Host Institution	Centre National de la Recherche Scientifique (CNRS) https://www.cnrs.fr/en
Research Lab	Laboratoire de Météorologie Dynamique https://www.lmd.ipsl.fr/en/home-2/
Research Team	Planetary Atmosphere team http://www-planets.lmd.jussieu.fr/planeto/index.html

Project Title

Convective processes and/or microphysics in giant planet atmospheres

Project Description

Our research group develops several types of 3D atmospheric models: General Circulation Models (GCM) and more local Cloud Resolving Model (CRM, explicitly resolving convection). We have applied the GCM to study the circulation of Saturn (eg., Spiga et al., Icarus 2020) and Jupiter (Boissinot et al., 2024) and the CRM to Uranus and Neptune (Clément et al., 2024). We are looking for someone willing to develop microphysics and/or improve sub-grid parametrization of convection in our GCM.

Keywords

moist and dry convection, microphysics of clouds, giant planets

Description of the Host Research Lab

The LMD studies climate, pollution and planetary atmospheres by combining theoretical approaches, instrumental developments for observation and numerical modelling. It is at the forefront of research on the dynamic and physical processes enabling the study of the evolution and forecasting of meteorological and climatic phenomena. Thanks to its history, the quality of its staff, the tools at its disposal, the diversity of its skills and the support of its supervisory bodies, the LMD has developed a scientific project for the 2014-2018 period which takes into account the expected developments in terms of observation (particularly space) and modelling, but also the internal dynamics that drive the laboratory. The laboratory is clearly positioned both on fundamental research on the processes, dynamics and physics of the atmosphere and climate, and on finalised research, particularly on questions relating to the anticipation of global warming and its consequences.

To submit your application, please send an email with the required documents to
msca-pf@sorbonne-universite.fr