



Postdoctoral position :

Large deviation theory and computation of rare events in geophysical turbulent flows

We are looking for top quality young researchers to join our research team. This position will be part of the ERC project TRANSITION led by Freddy Bouchet at laboratoire de physique of ENS-Lyon.

The research project TRANSITION aims at developing statistical mechanics tools, mainly based on large deviation theory, in order to compute rare events which are essential in the understanding of turbulent flows. The project focusses mainly on flows relevant for atmosphere, ocean, and climate dynamics. The problems studied span a complete range between academic turbulence problems and applications to climate dynamics, bridging theoretical studies from first principles with empirical computation of rare events through dedicated algorithms in realistic models of atmosphere and ocean dynamics.

The post-doc will take part on this ongoing research program by developing the numerical aspects of the computation of large deviation and rare events for turbulent flows. The project could deal either with academic basic problems or applications to atmosphere and ocean dynamics. The postdoctoral candidate should have a solid background in physics, applied mathematics, or climate dynamics. Furthermore, he/she should have experience in the numerical simulation of nonlinear partial differential equations, possibly in turbulence.

The working conditions will be very good, in the scientific environment of ENS-Lyon, with a very strong expertise and some of the leading researchers in turbulence, geophysical turbulence and statistical physics.

The position duration could extend from one to three years, and could start either in the first months of 2015 or in september-october 2015.

If you are interested please send a simple application, including a CV to Freddy Bouchet: Freddy.Bouchet@ens-lyon.fr