

LadHyX Seminar – March 28, 10:45

Riwal Plougonven & Alexis Tantet  
(LMD, Ecole Polytechnique)

**On numerical weather prediction: state-of-the-art and applications**

Riwal Plougonven and Alexis Tantet join themselves to give a description of Numerical Weather Prediction (NWP) models, a particularly important tool for atmospheric research and applications.

Riwal will briefly give an overview of key developments in atmospheric modeling for meteorology, explain important features of NWP models, and describe recent progress and expected future developments. In particular, these models provide a description of the state of the atmosphere for the past century (i.e. as reanalyses), which constitutes the basis for the analysis of the dynamics and variability of the atmospheric circulation.

Alexis will discuss the multi-scale character of atmospheric dynamics, from the planetary circulation to the boundary layer, and what this implies for applications. The presentation will be ended with a focus on the use of meteorological models to evaluate the impact of climate variability on renewable energy systems, thus illustrating one aspect of the multi-disciplinary program Trend-X.