



SPEAKER: Balázs Kégl (LAL/LRI-Orsay, FR)  
TITLE: **Learning to discover: machine learning in high-energy physics**  
DATE: Tue 13/05/2014 11:00  
PLACE: Main Auditorium

## ABSTRACT

In this talk we will survey some of the latest developments in machine learning research through the optics of potential applications in high-energy physics. We will then describe three ongoing projects in detail. The main subject of the talk is the data challenge we are organizing with ATLAS on optimizing the discovery significance for the Higgs to tau-tau channel. Second, we describe our collaboration with the LHCb experiment on designing and optimizing fast multi-variate techniques that can be implemented as online classifiers in triggers. Finally, we will sketch a relatively young project with the ILC (Calice) group in which we are attempting to apply deep learning techniques for inference on imaging calorimeter data.