



SPEAKER: Ariana Borrelli (Uni. Wuppertal)

TITLE: **A philosophical experiment: empirical study of knowledge production at the LHC**

DATE: Thu 14/02/2013 16:30

PLACE: Main Auditorium

## ABSTRACT

How is new knowledge produced in the natural sciences? This question has long been an issue of central relevance for philosophers, historians and sociologists of science, who have fiercely debated whether and how the emergence of new scientific knowledge can be described as following regular patterns, for example as far as the interplay of theory and experiment is concerned. To this aim, more or less recent historical examples have been used as empirical case studies, and widely diverging conclusions have at times been drawn from the same material.

The interdisciplinary, DFG-funded project-cluster "Epistemology of the LHC" (University of Wuppertal, Germany) has in the past three years attempted to investigate knowledge production "in real time" by following the interplay of theory and experiment unfold during the first phase of LHC activity and how the knowledge landscape of high energy physics accordingly did (or did not) change. To try and reconstruct some aspects of this epistemic dynamics, the project has made use of methodologies borrowed from different disciplines, among them interviews and online-surveys which were carried out both before and after the announcement of the "Higgs discovery" in summer 2012, allowing a most interesting comparison. In this contribution, the most recent results of the study will be presented to the research community for the first time and we hope to receive feedback to guide us in the planned second phase of the project.