



LPCC student lectures

LHC Physics Centre at CERN

SPEAKER: Dr. Stefano Redaelli (CERN)

TITLE: **The operation of the LHC accelerator complex**

DATE: Lecture 1: April 7, 10am-11am

Lecture 2: April 9, 10am-11am

PLACE: Main Auditorium

<http://indico.cern.ch/conferenceDisplay.py?confId=87719>

ABSTRACT

These lectures will give an overview of what happens when the LHC is in running mode.

They are aimed at students working on the LHC experiments, but all those who are curious about what happens behind the scenes of the LHC are welcomed. You will learn all you always wanted to know about the LHC, and never had the courage to ask!

The only pre-requisite is a basic, college-level, knowledge of EM and of the principles that allow to steer charged beams.

Topics covered will include, among others:

- the description of the injector chain, from the generation of the protons, to the delivery of bunches to the LHC.
- the discussion of the steps required to accelerate the beams in the LHC, to bring them into collision, and to control the luminosity at the interaction points.
- the description of the monitoring tools available to the LHC operators, and an explanation of the various plots and panels that can be found on the LHC web pages.

o Lecture 1: Wednesday April 7, 10-11am

o Lecture 2: Friday April 9, 10-11am

The lectures will be webcast, recorded and archived.

Coffee will be served before the lectures, starting at 9:45

Organised by: M.L. Mangano PH/TH