

**Title:** From Raw Data to Physics Results

**Lecturer:** Prof. Gunther Dissertori

**Date and Times:**

- 6<sup>th</sup> August at 10:15
- 7<sup>th</sup> August at 11:15

**Summary of the proposed talk:**

It is a long and complicated chain, from the signal created by a particle in a detector to a plot which shows a final physics result. In these two lectures I will explain the basic elements of this chain, such as the momentum measurement of a charged particle from its signals in a tracking detector, or the reconstruction of a quark's flight direction even if quarks are not directly observable.

**Prerequisite knowledge and references:**

Basic introduction to particle physics (the Standard Model, its particles and forces); basic introduction to particle detectors.

**Biography-  
Brief CV:**

1988 - 1993 : Study of Physics at the University of Innsbruck (Austria)

1992 : Summer Student at CERN

1994 - 1997 : PhD student, based at CERN (ALEPH experiment)

1997 - 1999 : CERN Fellow (ALEPH and CMS experiments)

1999 - 2001 : CERN Staff member as research physicist (ALEPH and CMS experiments)

2001 - 2007 : Assistant Professor at ETH Zurich

since June 2007 : Full Professor of Physics at ETH Zurich

Main research activity since 2001 : preparation of the CMS experiment, Project Leader of the ECAL Detector Control System, Co-Convener of the CMS JetMET Physics Object Group.

Further Information at: <http://wwweth.cern.ch/Dissertori/>

**Publications:**