

**Title:** Data Acquisition Systems

**Lecturer:** Dr Niko Neufeld

**Date and Times:**

- 28<sup>th</sup> July at 11:15
- 29<sup>th</sup> July at 10:15

**Summary of the proposed talk:**

Data acquisition is the process of getting the data from the detector to permanent storage. In the two lectures we will cover the main elements of data acquisition systems: read-out electronics, data-links, buses and switching networks and computers. Then we will go through the design of a DAQ for a modern large HEP experiment. Finally we will take a look at the DAQ systems of the 4 large LHC experiments.

**Prerequisite knowledge and references:**

No prerequisite knowledge required.

Familiarity with electronics and/or computing is useful but not necessary.

**Biography-**

**Brief CV:**

Since 2004 CERN staff

From 2003 to 2004 postdoc at Ecole Polytechnique Federale de Lausanne

From 2000 to 2002 CERN fellow (joined the Online group of the LHCb experiment )

Till 2000 employed by the Austrian Academy of Sciences (DELPHI experiment)

PhD in particle physics from Vienna University of Technology (1999),

From 1990 studies physics and computer science in Vienna