

**Title:** Dr

**Lecturer:** Niko Neufeld

**Date and Times:**

- Monday 19<sup>th</sup> July from 10:15am-11:00am
- Tuesday 20<sup>th</sup> July from 10:15am-11:00am
- Wednesday 21<sup>th</sup> July from 10:15am-11:00am
- Thursday 22<sup>th</sup> July from 10:15am-11:00am
- Friday 23<sup>th</sup> July from 10:15am-11:00am

**Summary of the proposed talk:** Data Acquisition Systems

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

**Publications:** None