Title: The Grid@CERN

Lecturer: Dr GREY, F and Dr SCHULZ, M

Date and Time: 4th August at 14:00.

Summary of the proposed talk

- **The part of Dr Grey:**

This talk will introduce the concept of computing Grid, explain why CERN needs Grid technology, and provide a brief overview of the main Grid projects. This talk serves as a background introduction to the following presentation by Markus Schulz concerning the LHC Computing Grid project.

- **The part of Dr Schulz:**

A short introduction of computing grid is given. Centered around the problems that a Grid has to solve examples are given how these problems have been solved in the LCG2 production service. Some of the most common commands are shown to illustrate how the grid is used from an endusers perspective.

Prerequisite knowledge and references
No prerequisite knowledge.
Reference: **www.gridcafe.org** is CERN's public outreach site concerning Grid technology, which provides a comprehensive introduction and useful links to all aspects of this rapidly evolving field.

Biography

- **Dr. François Grey**

(B.Sc. Physics, Imperial College; PhD Physics, HASYLAB, DESY)
He was Vice Director of the National Micro and Nanotechnology Center in Denmark between 1997 and 2002, and was made Professor of Nanotechnology at the Technical University of Denmark in 2002. His research has resulted in over 70 scientific publications, seven patents, and the creation of two nanotech start-up companies. He has taught courses on microelectronics and nanotechnology, guest lectured in numerous other courses, and been supervisor or co-supervisor to 5 Ph.D. and 8 Masters students.

Francois Grey is also a regular contributor to the Economist Newspaper and the Economist's Technology Quarterly, winning the Glaxo Science Writers prize in 1985, and more recently writing the feature-length cover article "Computing power on tap" in 2001, which helped to popularise the Grid. His interest in Grid technology stems from a project he launched in 2001 in collaboration with researchers at CERN for Grid and VR applications in nanotechnology.

Since July 2002, Francois Grey has been based at CERN, in charge of developing the CERN open lab for Data Grid applications, a partnership with industry (www.cern.ch/openlab). Recent invited talks he has

given on Grid applications include IGrid 2002, Amsterdam (plenary), the Danish Physical Society (plenary 2002). The University of Basel Computing Seminar (2002). He has organised two First Tuesday events on Grid-related technologies for industry and investors at CERN, attracting over 500 participants (see www.rezonance.ch archives). He has supervised summer student teams from the US, Denmark and Finland on Grid-related projects during summer 2002 at CERN and a student team at Helsinki University of Technology during a two semester practical course 2002-03 (see http://wikihip.cern.ch/twiki/bin/view/Openlab/OpenLab)

He is currently heading CERN's IT Communications team, and responsible for the CERN openlab student programme.

- **Dr. Markus Schulz**

Diploma thesis in Physics from the University of Dortmund. Subject related to detector development and data processing.

Working on various aspects of the H1 experiments. Detector, electronics, computing.
PhD in Physics from Hamburg University. Subject related to algorithms for calibration of tracking detectors.

Fellow at CERN working on the OPAL DAQ and trigger system.

Brookhaven National Lab. Working on design, implementation and commissioning of the DAQ system of the STAR experiment.

University Heidelberg: Work on trigger systems for LHC experiments (ALICE, LHCb). Farm based triggers, low latency high speed networks and
custom CPU development. Parallel computing lectures

CERN
Working on different grid projects and fabric management issues. Being active in the integration effort of edg and the deployment activities
of LCG. Main focus of work is helping to turn grid systems into production systems.