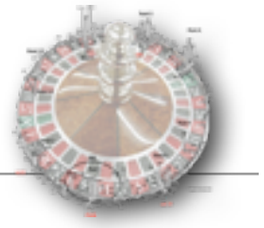
Welcome & Introduction

A. Giammanco (UCLouvain), T. Kuhl (DESY), A. Salzburger (CERN)

The next three days



Tuesday 15 January 2013

11:00 - 12:30 Welcome

- 11:30 **Welcome and Overview** *15'*

12:30 - 14:00 Lunch (Canteen)

14:00 - 16:00 Overview about fast simulation

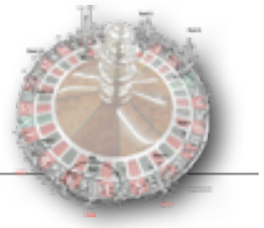
- 14:00 **Conceptional overview of fast simulation 45+15** *1h00'*
  Speaker: Thorsten Kuhl (DESY)
- 15:00 **Comparison Fast and Full simulation 45+15** *1h00'*
  Speakers: Daniel Froidevaux (CERN) , salz

16:00 - 16:30 Coffee

16:30 - 18:30 Delphes introduction and tutorial

- 16:30 **Delphes overview 20+10** *30'*
  Speaker: Michele Selvaggi (Michele.Selvaggi@cern.ch)
- 17:00 **Delphes tutorial** *1h30'*
  Speaker: Pavel Demin

The next three days



Wednesday 16 January 2013

09:00 - 12:30 **Frameworks**

- 09:00 **Framework Atlas** *1h00'*
  Speaker: Elmar Ritsch
- 10:00 **Coffee** *30'*
- 10:30 **Fast-Simulation and Digitalisation** *1h00'*
  Speaker: Federica Primavera
- 11:30 **ILC Geometry description** *1h00'*
  Speaker: Frank Gaede (DESY)

12:30 - 14:00 **Lunch** (Canteen)

14:00 - 16:00 **Calorimeter Concepts I**

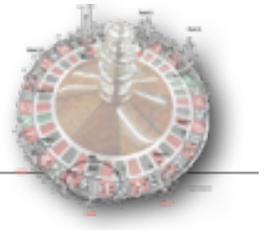
- 14:00 **Calorimeter frozen showers** *40'*
  Speaker: Mikhail Karnevskiy (DESY)
- 14:40 **Calorimeter parametric** *40'*
  Speaker: Michael Duehrssen (~~Albert-Ludwigs-Universität Freiburg~~ CERN)
- 15:20 **Calorimeter CMS** *40'*
  Speaker: Kevin Pedro

16:00 - 16:30 **Coffee**

16:30 - 18:30 ~~**Calorimeters II**~~ Particle Simulation

- 16:30 **LHC Tracking** *1h00'*
  Speaker: Andrea Giammanco (UCL Louvain)
- 17:30 **Particle Flow ILC** *1h00'*
  Speaker: Mikael Berggren (DESY)

The next three days



Thursday 17 January 2013

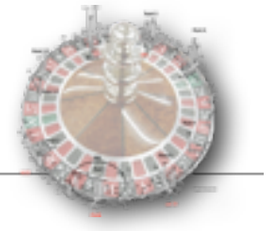
09:00 - 12:30 **Tracking and Future**

- 09:00 **Upgrade Simulation Atlas** *1h00'*
- 10:00 **Coffee** *30'*
- 10:30 **Upgrade simulation CMS** *1h00'*
  Speaker: silvia Tentindo
- 11:30 **Fast simulation at the T-Event Scale** *1h00'*
  Speaker: Andreas Salzburger (CERN)

12:30 - 14:00 Lunch (Canteen)

14:00 - 16:00 Closing discussion

Why ?

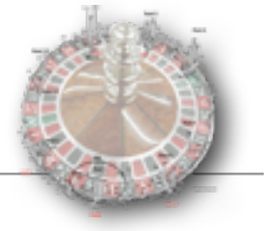


- Simulation is one of the most important aspects of high energy physics
  - long standing tradition of a common full simulation toolkit (Geant3/4/X)
  - common concepts on fast simulation developed in several areas

- There are stand-alone programs on the market
  - not really used by the experiments, but rather by individuals

- The LHC is working too well :-)
  - demand for MC statistics is highly increasing
  - even modern computing techniques easily achieve the necessary speed-up
  - first physics analyses become MC statistic limited

How ?



- This should have a workshop type character

  - participate ! ask ! criticise !

- There are stand-alone programs on the market

  - not really used by the experiments, but rather by individuals

- This is to exchange ideas

  - discuss, learn