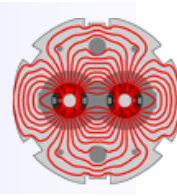


**ECFA - TOOC**



**ECFA HL-LHC Workshop**  
**PG7: Trigger, Online, Offline and Computing**  
**Preparatory Group Workshop: DAQ + HLT:**  
**Welcome and Introduction**

**Wesley H. Smith**

***U. Wisconsin - Madison***

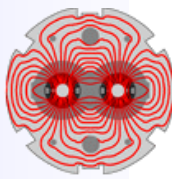
**Graeme Stewart**

***U. Glasgow***

**September 4, 2014**



# ECFA TOOC Membership



**ALICE: Latchezar Betev, Mikolaj Krzewicki, Pierre Vande Vyre,**

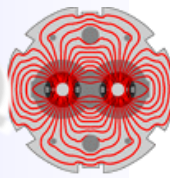
**ATLAS: Graeme Stewart, Benedetto Gorini, Nikos Konstantinidis, Imma Riu, Stefano Veneziano**

**CMS: Wesley Smith, Maria Girone, David Lange, Frans Meijers**

**LHCb: Peter Clarke, Vava Gligorov, Niko Neufeld**



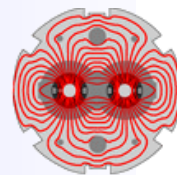
# Identified Topics: HLT and DAQ



- Compare input rate, output rates of HLT farm, size of data
- Resources and sharing with offline
- Common Tools
- Tracking and Calo clustering code developments
- Online use of multivariate classifiers
- How to use HLT to align/calibrate the detector in real time
- Collaboration with readout electronics groups
- DAQ strategies and plans.
- DCS issues
- Triggerless or quasi-triggerless DAQ Operation
- Evolution in storage and local network technologies cost and speed
  - Implications for triggers, DAQ computing model
- Torus interconnects (i.e. switch-less networks).



# Agenda



14:00 - 18:00

DAQ and HLT  [Join Vidyo](#) | [Connect IT Amphitheatre](#)

Convener: Wesley Smith (University of Wisconsin (US))

Location: [31-3-004 - IT Amphitheatre](#)

Material:

[Topics](#)



Timing is tight.  
Speakers are  
asked to keep to  
their times

14:00 **Introduction 10'**

Speaker: Wesley Smith (University of Wisconsin (US))

14:10 **LHCb readout and event building at 30 MHz 20'**

Speaker: Niko Neufeld (CERN)

14:30 **LHCb: Near-offline reconstruction at 30 MHz 20'**

Speakers: Tim Head (The University of Manchester), Tim Head (CERN)

14:50 **LHCb's real-time alignment/calibration strategy 20'**

Speaker: Silvia Borghi (University of Manchester (GB))

15:10 **ALICE Trigger Upgrade 20'**

Speakers: Marian Krivda (University of Birmingham (GB)), Anton Jusko (University of Birmingham (GB))

15:30 **ALICE DAQ Upgrade 20'**

Speaker: Pierre Vande Vyvre (CERN)

15:50 **Break 15'**

16:05 **ATLAS DAQ/HLT architecture for Phase II 45'**

Speaker: Wainer Vandelli (CERN)

16:50 **CMS DAQ for Phase II 20'**

Speaker: Frans Meijers (CERN)

17:10 **CMS HLT for Phase II 20'**

Speaker: Andrea Bocci (CERN)