

**Session Program**

**Oct 10 - 14, 2016**

**CHEP 2016 Conference, San Francisco,  
October 8-14, 2016**

***Track 1: Online Computing***

San Francisco Marriott Marquis

# Mon, October 10

11:00 AM

**Track 1: Online Computing: 1.1**  
**Session** | **Location:** San Francisco Marriott Marquis, GG A+B | **Convener:** Frank Winklmeier

**11:00 - 11:15 AM SND DAQ system evolution**  
**Speaker**  
 Alexander Bogdanchikov

**11:15 - 11:30 AM**  
**40-Gbps Data-Acquisition System for NectarCAM, a camera for the Medium Size Telescopes of the Cherenkov Telescope Array**

**11:30 - 11:45 AM The ATLAS Level-1 Topological Trigger Performance in Run 2**  
**Speaker**  
 Imma Riu

**11:45 AM - 12:00 PM ALICE HLT Run2 performance overview**  
**Speaker**  
 Mikolaj Krzewicki

**12:00 - 12:15 PM**  
**Improvements of the ALICE HLT data transport framework for LHC Run 2**  
**Speaker**  
 David Rohr

**12:15 - 12:30 PM Real-time analysis with the LHCb trigger in Run-II**  
**Speaker**  
 Gerhard Raven

12:30 PM

2:00 PM

**Track 1: Online Computing: 1.2**  
**Session** | **Location:** San Francisco Marriott Marquis, GG A+B | **Convener:** Gene Van Buren

**2:00 - 2:15 PM artdaq: DAQ Software Development Made Simple**  
**Speaker**  
 John Freeman

**2:15 - 2:30 PM**  
**Performance and evolution of the DAQ system of the CMS experiment for Run-2**  
**Speaker**  
 Remi Mommsen

**2:30 - 2:45 PM Support for Online Calibration in the ALICE HLT Framework**  
**Speaker**  
 Mikolaj Krzewicki

**2:45 - 3:00 PM**  
**Novel real-time alignment and calibration of the LHCb Detector in Run2**

**Speaker**  
Maurizio Martinelli

3:00 - 3:15 PM

**Continuous and fast calibration of the CMS experiment: design of the automated workflows and operational experience**

**Speaker**  
Piotr Karol Oramus

3:15 - 3:30 PM

**Status of the Calibration and Alignment Framework at the Belle II Experiment**

3:30 - 3:45 PM

**Frameworks to monitor and predict resource usage in the ATLAS High Level Trigger**

**Speaker**  
Tim Martin

3:45 - 4:00 PM

**New operator assistance features in the CMS Run Control System**

**Speaker**  
Hannes Sakulin

4:00 PM

# Tue, October 11

11:00 AM

## Track 1: Online Computing: 1.3

**Session** | **Location:** San Francisco Marriott Marquis, Sierra A | **Convener:** Tim Martin

11:00 - 11:15 AM **The CMS Data Acquisition - Architectures for the Phase-2 Upgrade**

**Speaker**

Emilio Meschi

11:15 - 11:30 AM

**ATLAS Trigger and Data Acquisition Upgrades for High Luminosity LHC**

**Speaker**

Simon George

11:30 - 11:45 AM **FELIX: the new detector readout system for the ATLAS experiment**

**Speaker**

Soo Ryu

11:45 AM - 12:00 PM **The detector read-out in ALICE during Run 3 and 4**

**Speaker**

Filippo Costa

12:00 - 12:15 PM **Online Data Compression in the ALICE O2 facility**

**Speaker**

Matthias Richter

12:15 - 12:30 PM

**The InfiniBand based Event Builder implementation for the LHCb upgrade**

**Speaker**

Matteo Manzali

12:30 PM

2:00 PM

## Track 1: Online Computing: 1.4

**Session** | **Location:** San Francisco Marriott Marquis, Sierra A | **Convener:** Simon George

2:00 - 2:15 PM

**Implementation of the ATLAS trigger within the ATLAS MultiThreaded Software Framework AthenaMT**

**Speaker**

Benjamin Michael Wynne

2:15 - 2:30 PM

**The design of a fast Level 1 track trigger for the ATLAS High Luminosity Upgrade**

**Speaker**

Benedict Allbrooke

2:30 - 2:45 PM **Track Finding in CMS for the Level-1 Trigger at the HL-LHC**

**Speakers**

Kristian Hahn, Marco Trovato

2:45 - 3:00 PM

**Reconstruction of Micropattern Detector Signals using Convolutional Neural Networks**

**Speaker**

Mrs Lucie Flekova

3:00 - 3:15 PM

**Online computing architecture for the CBM experiment at FAIR**

3:15 - 3:30 PM

**Realtime processing of LOFAR data for the detection of particles with the Moon**

**Speaker**

Dr Tobias Winchen

3:30 PM

# Wed, October 12

11:15 AM

## Track 1: Online Computing: 1.5

**Session** | **Location:** San Francisco Marriott Marquis, Sierra A | **Convener:** Sylvain Chapeland

11:15 - 11:30 AM

### The Trigger and Data Acquisition System for the KM3NeT-Italy neutrino telescope

**Speaker**

Matteo Manzali

11:30 - 11:45 AM

### Development of DAQ Software for CULTASK Experiment

**Speaker**

Soohyung Lee

11:45 AM - 12:00 PM

### The LArIAT Experiment's Data Acquisition and Trigger System

**Speaker**

Dr William Badgett

12:00 - 12:15 PM

### Message Queues for Online Reconstruction on the Example of the PANDA Experiment

**Speaker**

Tobias Stockmanns

12:15 - 12:30 PM

### STAR Online Meta Data Collection Framework: Integration with the Pre-existing Controls Infrastructure

**Speaker**

Dmitry Arkhipkin

12:30 - 12:45 PM

### Optical follow-up of gravitational wave triggers with DECam

**Speaker**

Dr Kenneth Richard Herner

12:45 - 1:00 PM

### NaNet: a Configurable Network Interface Card for Trigger and DAQ Systems

**Speaker**

Alessandro Lonardo

1:00 PM

## Thu, October 13

11:00 AM

### Track 1: Online Computing: 1.6

**Session** | **Location:** San Francisco Marriott Marquis, Sierra A | **Convener:** Christian Faerber

11:00 - 11:15 AM

#### Multi-Threaded Algorithms for General purpose Graphics Processor Units in the ATLAS High Level Trigger

**Speaker**

Patricia Conde Muino

11:15 - 11:30 AM

#### GPU-accelerated track reconstruction in the ALICE High Level Trigger

**Speaker**

David Rohr

11:30 - 11:45 AM

#### Accelerated tracking using GPUs at CMS High Level Trigger for Run 3

**Speaker**

Mr Felice Pantaleo

11:45 AM - 12:00 PM

#### Fast GPU Nearest Neighbors search algorithms for the CMS experiment at LHC

**Speakers**

Alessandro Degano, Felice Pantaleo

12:00 - 12:15 PM

#### First experiences with a parallel architecture testbed in the LHCb trigger system

**Speaker**

Stefano Gallorini

12:15 - 12:30 PM

#### LHCb Kalman Filter cross architectures studies

**Speaker**

Daniel Hugo Campora Perez

12:30 PM

2:00 PM

### Track 1: Online Computing: 1.7

**Session** | **Location:** San Francisco Marriott Marquis, Sierra A | **Convener:** Jason Webb

2:00 - 2:15 PM

#### Muon trigger for mobile phones

**Speaker**

Maxim Borisyak

2:15 - 2:30 PM

#### Acceleration of Cherenkov angle reconstruction with the new Intel Xeon/FPGA compute platform for the particle identification in the LHCb Upgrade.

**Speaker**

Christian Faerber

2:30 - 2:45 PM

**HEP Track Finding with the Micron Automata Processor and Comparison with an FPGA-based Solution**

**Speaker**

John Freeman

2:45 - 3:00 PM

**FPGA based data processing in the ALICE High-Level Trigger in LHC Run 2**

**Speaker**

Heiko Engel

3:00 - 3:15 PM

**An artificial retina processor for track reconstruction at the full LHC crossing rate**

**Speaker**

Simone Stracka

3:15 - 3:30 PM

**Numerical Optimization for Fast Track Finding Based on the Artificial Retina Algorithm**

**Speaker**

Maxim Borisyak

3:30 PM