



ACAT 2014

Computing Technology for Physics Research

Faculty of Civil Engineering
Faculty of Civil Engineering, Czech Technical University in Prague Thakurova 7/2077 Prague 166 29
Czech Republic

Monday 1 September

14:00

Computing Technology for Physics Research: Monday

Location: Faculty of Civil Engineering, C217, Faculty of Civil Engineering, Czech Technical University in Prague Thakurova 7/2077 Prague 166 29 Czech Republic

Convener: Axel Naumann

14:00-14:25 The LHCb trigger and its upgrade

Speaker

Gerhard Raven

14:25-14:50

The Massive Affordable Computing Project: Prototyping of a High Data **Throughput Processing Unit**

Speaker

Mitchell Arij Cox

14:50-15:15

STAR Online Framework: from Metadata Collection to Event Analysis and System **Control**

Speaker

Dmitry Arkhipkin

15:40 16:10

Computing Technology for Physics Research: Monday

Location: Faculty of Civil Engineering, C217, Faculty of Civil Engineering, Czech Technical University in Prague

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Convener: Niko Neufeld

16:10-16:35

ATLAS FTK challenge: simulation of a billion-fold hardware parallelism

Speaker

Alexandre Vaniachine

Heterogeneous High Throughput Scientific Computing with ARMv8 64-bit and **Xeon Phi**

Speaker

David Abdurachmanov

17:00-17:25

Techniques and tools for measuring energy efficiency of scientific software applications

Speaker

Goncalo Marques Pestana

17:25-17:50 The ALICE analysis train system

Speaker

Markus Bernhard Zimmermann

17:50

Tuesday 2 September

14:00

Computing Technology for Physics Research: Tuesday

Session

Location: Faculty of Civil Engineering, C217, Faculty of Civil Engineering, Czech Technical University in Prague Thakurova 7/2077 Prague 166 29 Czech Republic

Convener: Niko Neufeld

14:00-14:25

Adaptative track scheduling to optimize concurrency and vectorization in GeantV

Speaker

Andrei Gheata

14:25-14:50

Towards a generic high performance geometry library for particle transport simulation

Speaker

Sandro Christian Wenzel

14:50-15:15 Native Language Integrated Queries with CppLINQ in C++

Speaker

Vasil Georgiev Vasilev

15:15-15:40 Modernising ROOT: Building Blocks for Vectorised Calculations

Speaker

Sandro Christian Wenzel

15:40

Computing Technology for Physics Research: Tuesday

Session

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16:10-16:35

Gaudi Components for Concurrency: Concurrency for Existing and Future Experiments

Speaker

Daniel Funke

16:35-17:00 Belle II distributed computing

Speaker

Pavel Krokovny

17:00-17:25

Implementation of a multi-threaded framework for large-scale scientific applications

Speaker

Elizabeth Sexton-Kennedy

17:25-17:50 Evolution of the ATLAS Software Framework towards Concurrency

Speaker
Roger Jones

Thursday 4 September

13:45

Computing Technology for Physics Research: Thursday Location: Faculty of Civil Engineering, C217, Faculty of Civil Engineering, Czech Technical University in Prague Thakurova 7/2077 Prague 166 29 Czech Republic Convener: Jiri Chudoba 13:45-14:10 An overview of the DII-HEP OpenStack based CMS Data Analysis Speaker Tomas Linden 14:10-14:35 Distrubuted job scheduling in MetaCentrum Speaker Mr Šimon Tóth 14:35-15:00 WLCG Tier-2 site in Prague: a little bit of history, current status and future perspectives Speaker Dr Dagmar Adamova 15:00-15:25 Recent Developments in the CVMFS Server Backend Speaker Rene Meusel 15:25-15:50 Planning for distributed workflows: constraint based co-scheduling of computational jobs and data placement in distributed environments. **Speaker**

15:50

Mr Dzmitry Makatun