

**Session Program**

**25-29 May 2026**

**28th Conference on Computing in High  
Energy and Nuclear Physics (CHEP 2026)**

***Track 2 - Online and real-time computing***

Chulalongkorn University

# Monday 25 May

13:45

## Track 2 - Online and real-time computing

Session | Location: Chulalongkorn University

13:45-14:03 **The ATLAS Trigger System**

**Speaker**

Stefanie Morgenstern

14:03-14:21

**Development of Data Scouting program in Run 3 at the CMS experiment**

**Speaker**

Patin Inkaew

14:21-14:39

**A Hyperparameter Optimization Framework for Preparing ML Models for Real-Time Trigger Deployment**

**Speaker**

Anastasiia Petrovych

14:39-14:57

**An End-to-End, Unified Workflow for Sub-Microsecond Inference on FPGAs**

**Speaker**

Dimitrios Danopoulos

14:57-15:15

**AIE4ML: Leveraging Versal AI Engines to Enable More Expressive Real-Time ML Models for Next-Generation Trigger Systems**

**Speaker**

Dimitrios Danopoulos

15:15

16:15

## Track 2 - Online and real-time computing

Session | Location: Chulalongkorn University

16:15-16:33 **Autoencoders for real-time event selection at the LHCb experiment**

**Speaker**

Paloma Laguarda González

16:51-17:09

**Online searches for long-lived particles at LHCb: BuSca (Buffer Scanner)**

**Speaker**

Valerii Kholoimov

17:09-17:27

**Accelerating Graph Neural Networks on FPGAs for Real-Time Level-0 Muon Triggering**

17:27-17:45

**Particle-Based Representation Learning for Anomaly Detection in the CMS High-Level Trigger**

**Speaker**

Mehrnoosh Moallemi

17:45-18:03

**Advances in the Optimisation of the LHCb First Level Trigger**

**Speaker**

Andreea-Irina Hedes

18:03

## Tuesday 26 May

13:45

### Track 2 - Online and real-time computing

Session | Location: Chulalongkorn University

13:45-14:03

#### Advancing the CMS Level-1 Trigger: Jet Tagging and pT regression with Deep Sets at the HL-LHC

**Speaker**

Stella Felice Schaefer

14:03-14:21

#### Modular Neural Network Deployment in hls4ml for Next-Generation LHC Trigger Systems

**Speaker**

Enrico Lupi

14:21-14:39

#### Optimizing GNNs for the Wild: PyTorch-to-ONNX Acceleration of GarNet on CPUs and GPUs

**Speakers**

Ronald Caravaca-Mora, Cilicia Uzziel Perez

14:39-14:57

#### It's not a FAD: first demonstration of Flows for unsupervised Anomaly Detection at 40 MHz for use at the Large Hadron Collider

**Speaker**

Dimitrios Danopoulos

14:57-15:15

#### COLLIDE-2V - 750 Million Dual-View LHC Event Dataset for Low-Latency ML

**Speaker**

Eric Anton Moreno

15:15

16:15

### Track 2 - Online and real-time computing

Session | Location: Chulalongkorn University

16:15-16:33

#### Workflow setup and configuration for the ALICE online processing

**Speaker**

Ernst Hellbär

16:33-16:51

#### Towards Collaborative, Web-Native Monitoring Dashboards for Online and Archived Histograms in ATLAS using Grafana and JSROOT

**Speaker**

Serguei Kolos

16:51-17:09

**Hydra: A scalable, open-source vision system for continual data quality monitoring**

**Speaker**

Thomas Britton

17:09-17:27

**ClickHouse-Based ATLAS Operational Monitoring Data Archiving Service Prototype**

**Speaker**

Igor Soloviev

17:27-17:45

**Optimising Memory Usage in the LHCb Online Mover with a Rust-Based Architecture**

**Speaker**

Robert Laszlo Gulyas

17:45-18:03

**Reinforcement Learning-Based Control of Polarized Target and Goniometer Systems at Jefferson Lab**

**Speaker**

Torri Jeske

18:03

## Wednesday 27 May

13:45

### Track 2 - Online and real-time computing

Session | Location: Chulalongkorn University

13:45-14:03 **ATLAS Event Filter muon reconstruction for the HL-LHC**

**Speaker**

Leonardo Monaco

14:03-14:21 **Filtering hits for speeding up track reconstruction at hadron colliders**

**Speakers**

Alessandro Zaio, Alessandro Zaio

14:21-14:39

**Real-Time event reconstruction for Nuclear Physics Experiments using Artificial Intelligence**

**Speaker**

Gagik Gavalian

14:39-14:57

**Development of streaming data reconstruction for ePIC experiment at EIC**

**Speaker**

Takuya Kumaoka

14:57-15:15

**Regional reconstruction of tracks for the ATLAS Event Filter using GPU accelerators**

**Speaker**

Eleni Xochelli

15:15

16:15

### Track 2 - Online and real-time computing

Session | Location: Chulalongkorn University

16:15-16:33 **The backward realtime tracking strategy in the LHCb experiment**

**Speaker**

Jiahui Zhuo

16:33-16:51

**Studies of FPGA accelerated track reconstruction for the ATLAS Event Filter**

**Speaker**

Ioannis Maznas

16:51-17:09

**Real-time 40 MHz Track Reconstruction: The Readout and Processing Chain of the CMS Outer Tracker for HL-LHC**

**Speaker**

Marco Riggirello

17:09-17:27 **Neural network cluster finding for the ALICE TPC online computing**

**Speaker**  
Christian Sonnabend

17:27-17:45

**A heterogeneous and vectorized sequence for the HL-LHC full tracking reconstruction of the CMS experiment**

**Speaker**  
Manos Vourliotis

17:45-18:03

**Studies of track reconstruction performance in the ATLAS Event Filter for the HL-LHC**

**Speaker**  
Federica Piazza

18:03

## Thursday 28 May

13:45

### Track 2 - Online and real-time computing

Session | Location: Chulalongkorn University

13:45-14:03

#### A Unified Interface to ML Runtimes for Inference across Heterogeneous Architectures

##### Speaker

Sanjiban Sengupta

14:03-14:21

#### When Less is More: Towards Lightweight and Distilled Graph Neural Networks and for Efficient Particle Reconstruction in LHCb's Next-Generation Calorimeter

##### Speakers

Cilicia Uzziel Perez, Irvin Jadurier Umana Chacon

14:21-14:39

#### Conceptual Design and Operation of the Calibration Loop for the Next Generation Triggers in the CMS Experiment

##### Speaker

Jessica Prendi

14:39-14:57

#### Towards AI-Driven Automation for Data Quality Monitoring in ALICE

##### Speaker

Zeta Sourpi

14:57-15:15

#### PQuantML: A Tool for End-to-End Hardware-aware Model Compression

##### Speaker

Roope Oskari Niemi

15:15

13:45

### Track 2 - Online and real-time computing

Session | Location: Chulalongkorn University

13:45-14:03

#### Mitigating Deadtime in Distributed Optical Arrays: A Liveness-Aware Trigger Approach for High-Energy Neutrino Detection

##### Speaker

Mr Thammarat Yawisit

14:03-14:21

#### Real-Time Uncertainty Quantification for Jet Tagging Models on the Level-1 Trigger

##### Speaker

Tarik Ourida

14:21-14:39

#### Recursive Manifold Coherence: A Geometric Framework for Deadtime Recovery in Distributed Trigger Systems

**Speaker**  
Mr Thammarat Yawisit

14:39-14:57

**New trigger algorithms for detecting Long-Lived particle decays inside the LHCb magnet region**

**Speakers**  
Izaak Sanderswood, Volodymyr Svintozelskyi

14:57-15:15 **The phase-1 upgrade of the ATLAS level-1 calorimeter trigger**

**Speaker**  
Jared Little

15:15

16:15

**Track 2 - Online and real-time computing**

**Session** | **Location:** Chulalongkorn University

16:15-16:33 **New DAQ software for the NEXT-100 experiment**

**Speaker**  
Jose Maria Benlloch Rodriguez

16:33-16:51

**Scalable DAQ Performance for Supernova Neutrino Observations in DUNE**

**Speaker**  
Mr Robert-Mihai Amariniei

16:51-17:09 **The online event classification software in the JUNO experiment**

**Speaker**  
Wenxing Fang

17:27-17:45 **The SPD Online filter.**

**Speaker**  
Dr Danila Oleynik

17:45-18:03

**Service-Based DUNE Run Control Architecture for High-Availability Data Acquisition**

**Speaker**  
Pawel Maciej Plesniak

18:03

16:15

**Track 2 - Online and real-time computing**

**Session** | **Location:** Chulalongkorn University

16:15-16:33

**The upgrade of the ATLAS Trigger and Data Acquisition system for the High Luminosity LHC**

**Speaker**  
Marcos Vinicius Silva Oliveira

16:33-16:51 **The data handling library of the DUNE Data Acquisition System**

**Speaker**  
Deniz Tuana Ergonul

16:51-17:09

**Wall-time-driven data aggregation for the CBM FLES input interface**

**Speaker**

Dirk Hutter

17:09-17:27

**Networking in KM3NeT**

**Speaker**

Emidio Maria Giorgio

17:27-17:45

**Performance evaluation and optimization of ethernet-based data acquisition servers in DUNE**

**Speakers**

Deniz Tuana Ergonul, Shyam Bhuller

17:45-18:03

**Development of a common platform for streaming readout DAQ systems within the SPADI Alliance**

**Speaker**

Tomonori Takahashi

18:03