

Conference on Computing in High Energy and Nuclear Physics

Monday 21 October 2024

Parallel (Track 3): Offline Computing - Room 1.A (Medium Hall A) (13:30 - 15:18)

-Conveners: Charis Kleio Koraka; Laura Cappelli

time	[id] title	presenter
13:30	[446] Quantum Machine Learning for track reconstruction	CAPPELLI, Laura
13:48	[352] TrackHHL: A Quantum Computing Algorithm for Track Reconstruction at the LHCb	CHIOTOPOULOS, Xenofon Mr CHIOTOPOULOS, Xenofon
14:06	[366] Particle Identification at STCF DTOF Detector Based on Classical/Quantum Convolutional Neural Network	YAO, Zhipeng
14:24	[498] From Hope to Heuristic: Realistic Runtime Estimates for Quantum Optimisation in NHEP	FRANZ, Maja
14:42	[414] Automatic and effective discovery of quantum kernels	Dr GROSSI, Michele

Parallel (Track 3): Offline Computing - Room 1.B (Medium Hall B) (13:30 - 15:18)

-Conveners: Davide Valsecchi; Rosen Matev

time	[id] title	presenter
13:30	[154] Direct I/O for RNTuple Columnar Data	HAHNFELD, Jonas
13:48	[91] AthenaTriton: A Tool for running Machine Learning Inference as a Service in Athena	CHOU, Yuan-Tang
14:06	[16] Management of the data processing & Run-by-Run simulations in KM3NeT	SINOPOULOU, Anna
14:24	[314] Offline data processing software for the High Energy cosmic-Radiation Detection facility	SHI, qianqian
14:42	[265] Evolution of the ATLAS event data model for the HL-LHC	SNYDER, Scott
15:00	[421] Sprucing and Analysis Productions: Offline data processing in LHCb without the pain	Dr SKIDMORE, Nicole

Parallel (Track 3): Offline Computing - Room 1.A (Medium Hall A) (16:15 - 18:03)

-Conveners: Davide Valsecchi; Rosen Matev

time	[id] title	presenter
16:15	[205] R&D towards heterogenous frameworks for Future Experiments	FILA, Mateusz Jakub
16:33	[83] Future scheduling in Athena on Accelerators and Multiple Nodes	STANISLAUS, Beojan
16:51	[299] Experience with the alpaka performance portability library in the CMS software	Dr BOCCI, Andrea
17:09	[432] Advancements in Offline Analysis Software for Run III at LHCb	MATHAD, Abhijit
17:27	[524] Status of DUNE Offline Computing	Dr KIRBY, Michael Hudson
17:45	[300] Adapting to Change: A look at the evolution of ALICE's Quality Control framework	KONOPKA, Piotr

Tuesday 22 October 2024

Parallel (Track 3): Offline Computing - Room 1.A (Medium Hall A) (13:30 - 15:18)

-Conveners: **Davide Valsecchi; Laura Cappelli**

time	[id] title	presenter
13:30	[359] The CMS Phase-2 High Granularity Calorimeter Endcap Event Reconstruction with the TICL Framework	REDJEB, Wahid
13:48	[279] End-to-end ML-based reconstruction	GARCIA, Dolores
14:06	[39] Cluster counting reconstruction with classical supervised learning and transfer learning	Dr ZHAO, Guang
14:24	[284] Towards end-to-end particle flow in high granularity detectors	GARCIA, Dolores
14:42	[135] Optimized Graph Convolution for calorimetry event classification	MELENNEC, Matthieu Martin

Parallel (Track 3): Offline Computing - Room 1.A (Medium Hall A) (16:15 - 18:03)

-Conveners: **Charis Kleio Koraka; Rosen Matev**

time	[id] title	presenter
16:15	[281] Optimizing cut-based algorithms to specific physics acceptance regions	HUBER, Benjamin
16:33	[367] Anomaly Detection using Autoencoders on Fundamental LZ Signals	ANDERSON, Tyler
16:51	[465] Prospects for novel track reconstruction algorithms based on Graph Neural Network models using telescope detector testbed	GOMULKA, Wojciech
17:09	[31] Anomaly Detection on BESIII EMC using Machine Learning	LI, Mingrun
17:27	[349] Primary vertex timing reconstruction with the LHCb Ring Imaging Cherenkov detectors	MALENTACCA, Lorenzo

Wednesday 23 October 2024

Parallel (Track 3): Offline Computing - Room 1.A (Medium Hall A) (13:30 - 15:18)

-Conveners: **Davide Valsecchi; Rosen Matev**

time	[id] title	presenter
13:30	[203] Fast Jet Reconstruction in Julia	STEWART, Graeme A
13:48	[302] Reconstruction in Key4hep using Gaudi	CARCELLER, Juan Miguel
14:06	[424] The Real-Time Data Workflow of LZ Dark Matter Experiment at NERSC	ARTHURS, Maris
14:24	[221] Next generation geometry model for Tracking in ACTS	GESSINGER, Paul
14:42	[132] TGeoArbN - A ROOT compatible triangle mesh geometry implementation	SALISBURY, Ben

Parallel (Track 3): Offline Computing - Room 1.A (Medium Hall A) (16:15 - 18:03)

-Conveners: **Charis Kleio Koraka; Laura Cappelli**

time	[id] title	presenter
16:15	[157] Towards a GPU-enabled electron seeding algorithm in the CMS experiment	KORAKA, Charis Kleio
16:33	[362] traccc: GPU track reconstruction library for HEP experiments	YEO, Beomki
16:51	[237] Application of TRACCC seeding to the CEPC vertex detector	ZHANG, Yizhou
17:09	[125] Extending ALICE's GPU tracking capabilities: Towards a comprehensive accelerated barrel reconstruction	CONCAS, Matteo

Thursday 24 October 2024

Parallel (Track 3): Offline Computing - Room 1.A (Medium Hall A) (13:30 - 15:18)

-Conveners: Charis Kleio Koraka; Rosen Matev

time	[id] title	presenter
13:30	[115] A Multi-Objective Optimization Tool for Track Reconstruction in CMS	ROSSI TISBENI, Simone
13:48	[514] Efficient ML-Assisted Particle Track Reconstruction Designs	DOBREVA, Nadezhda
14:06	[72] Integration of the ACTS track reconstruction toolkit in the ATLAS software for HL-LHC operations	VARNI, Carlo
14:24	[470] Track reconstruction in the STCF detector	ZHOU, Hang
14:42	[42] Optimal use of timing measurement in vertex reconstruction at CMS	DE LEO, Ksenia
15:00	[18] Improving multi-track reconstruction algorithms in the Mu2e Experiment	RICCI, Alessandro Maria

Parallel (Track 3): Offline Computing - Room 1.A (Medium Hall A) (16:15 - 18:03)

-Conveners: Laura Cappelli; Davide Valsecchi

time	[id] title	presenter
16:15	[195] High Performance Graph Segmentation for ATLAS GNN Track Reconstruction	MURNANE, Daniel Thomas
16:33	[374] GPU-Accelerated Point Clouds Library for GNN-based Reconstruction and Beyond	QASIM, Shah Rukh
16:51	[190] Improving Computational Performance of ATLAS GNN Track Reconstruction Pipeline	LAZAR, Alina
17:09	[136] Ranking-based machine learning for track seed selection in ACTS	ALLAIRE, Corentin
17:27	[273] EggNet: An Evolving Graph-based Graph Attention Network for End-to-end Particle Track Reconstruction	CHAN, Jay
17:45	[516] Energy-efficient graph-based algorithm for tracking at the HL-LHC	TORRES, Heberth