

24th International Conference on Computing in High Energy & Nuclear Physics

Monday, November 4, 2019

Track 2 – Offline Computing: ML Reconstruction & PID - Riverbank R6 (11:00 AM - 12:30 PM)

-Conveners: Teng Jian Khoo

time	[id] title	presenter
11:00	[P07] A Graph Neural Network Approach for Neutrino Signal Reconstruction from LarTPC Raw Data	CARMINATI, Federico
11:15	[P08] Particle Reconstruction with Graph Networks for irregular detector geometries	PIERINI, Maurizio
11:30	[P09] Interaction networks for jet characterisation at the LHC	VLIMANT, Jean-Roch
11:45	[P10] A deep neural network method for analyzing the CMS High Granularity Calorimeter (HGCal) events	GRASSEAU, Gilles
12:00	[P11] GRAAL: A novel package to reconstruct data of triple-GEM detectors	FARINELLI, Riccardo
12:15	[P12] Particle identification algorithms for the Panda Barrel DIRC	Dr DZHYGADLO, Roman

Track 2 – Offline Computing: ML and generative simulation - Riverbank R6 (2:00 PM - 3:30 PM)

-Conveners: Chiara Ilaria Rovelli

time	[id] title	presenter
2:00 P	[M06] Fast Simulations at LHCb	DAVIS, Adam
2:15 P	[M08] Fast simulation methods in ATLAS: from classical to generative models	RAINE, Johnny
2:30 P	[M09] Learning high-level structures in HEP data with novel Deep Auto-Regressive Networks for Fast Simulation	IFRIM, Ioana
2:45 P	[M10] Particle shower simulation in high granularity calorimeters using 3 dimensional convolutional Generative Adversarial Networks	BRITO DA ROCHA, Ricardo
3:00 P	[M11] Generative Adversarial Networks for LHCb Fast Simulation	RATNIKOV, Fedor
3:15 P	[M12] Generation of Belle II pixel detector background data with a GAN	KUHR, Thomas

Tuesday, November 5, 2019

Track 2 – Offline Computing: G4 and simulation frameworks - Riverbank R6 (11:00 AM - 12:30 PM)

-Conveners: Chris Pinkenburg

time	[id] title	presenter
11:00	A309 [A309] Geant4 electromagnetic physics progress	HRIVNACOVA, Ivana
11:15	A302 [A302] Dealing with High Background Rates in Simulations of the STAR Heavy Flavor Tracker	WEBB, Jason
11:30	A413 [A413] A VecGeom navigator plugin for Geant4	WENZEL, Sandro Christian
11:45	A60 [A60] Integration and Performance of New Technologies in the CMS Simulation	PEDRO, Kevin
12:00	P141 [P141] Status of JUNO simulation software	Dr DENG, Ziyang
12:15	P105 [P105] System simulations for the ALICE ITS detector upgrade	NESBO, Simon Voigt

Track 2 – Offline Computing: Lightweight simulation and optimisation - Riverbank R6 (2:00 PM - 3:30 PM)

-Conveners: Chris Pinkenburg

time	[id] title	presenter
2:00	M85 [M85] Gaussino - a Gaudi-based core simulation framework	MULLER, Dominik
2:15	M80 [M80] Geant4 performance optimization in the ATLAS experiment	MUSKINJA, Miha
2:30	M26 [M26] FullSimLight: ATLAS standalone Geant4 simulation	BANDIERAMONTE, Marilena
2:45	M46 [M46] The Heavy Photon Search Experiment Software Environment	GRAF, Norman Anthony
3:00	M41 [M41] Selective background Monte Carlo simulation at Belle II	KAHN, James
3:15	M24 [M24] Multithreaded simulation for ATLAS: challenges and validation strategy	BANDIERAMONTE, Marilena

Track 2 – Offline Computing: Cross-experiment frameworks & foundations - Riverbank R6 (4:30 PM - 6:00 PM)

-Conveners: Chris Pinkenburg

time	[id] title	presenter
4:30	M51 [M51] DD4hep: a community driven detector description tool for HEP	GAEDE, Frank-Dieter
4:45	M0 [M0] CMS Experience with Adoption of the Community-supported DD4hep Toolkit	Dr VUOSALO, Carl
5:00	M64 [M64] Evolution of the ROOT Tree I/O	BLOMER, Jakob
5:15	M66 [M66] Automatic Differentiation in ROOT	SHADURA, Oksana
5:30	M89 [M89] Review of High-Quality Pseudo Random Number Generators	MONETA, Lorenzo
5:45	M59 [M59] Using multiple engines in the Virtual Monte Carlo package	VOLKEL, Benedikt

Thursday, November 7, 2019

Track 2 – Offline Computing: ML Tracking and parallelisation - Riverbank R6 (11:00 AM - 12:30 PM)

-Conveners: Paul James Laycock

time	[id] title	presenter
11:00	A103 GPU Application in JUNO	Dr LUO, Wuming
11:15	A102 Reconstruction for Liquid Argon TPC Neutrino Detectors Using Parallel Architectures	CERATI, Giuseppe
11:30	A109 Similarity Hashing and Learning for Tracks Reconstruction	AMROUCHE, Sabrina
11:45	A109 Mikado approach for the TrackML Particle Tracking Challenge	GORBUNOV, Sergey
12:00	P111 Reconstruction of Charged Particle Tracks in Realistic Detector Geometry Using a Vectorized and Parallelized Kalman Filter Algorithm	CERATI, Giuseppe
12:15	P103 Edepillim: A New Muon Energy Reconstruction Method	Dr ROBERTSON, Sally

Track 2 – Offline Computing: Reconstruction and Performance - Riverbank R6 (2:00 PM - 3:30 PM)

-Conveners: Chiara Ilaria Rovelli

time	[id] title	presenter
2:00 P	M183 Prompt calibration automation at Belle II	SEVIOR, Martin
2:15 P	M130 Alignment for the first precision measurements at Belle II	BILKA, Tadeas BILKA, Tadeas
2:30 P	M184 Performance of Belle II tracking on collision data	RADOS, Petar Kevin RADOS, Petar Kevin
2:45 P	M145 Improvements to ATLAS primary vertexing reconstruction for LHC Run 3	CASPER, Dave
3:00 P	M136 Experience supporting Belle II CDB server Infrastructure for Phase 3	GAMBOA, Carlos Fernando
3:15 P	M160 The CMS Run Registry: Data Certification and Publication System tool	ESPINOSA BURBANO, Fabio Alberto