ICHEP 2022

Friday, 8 July 2022

Computing and Data handling - Room 12 (Celeste) (09:00 - 10:45)

-Conveners: Daniele Bonacorsi; James Letts

time	[id] title	presenter
09:00	[559] AtlFast3: the next generation of fast simulation in ATLAS	CARTER, Thomas
09:15	[208] Deep learning techniques for energy clustering in the CMS electromagnetic calorimeter	MARZOCCHI, Badder
09:30	[1071] Generative Models for Fast Simulation of Electromagnetic and Hadronic Showers in Highly Granular Calorimeters	MCKEOWN, Peter
09:45	[1020] Lamarr: the ultra-fast simulation option for the LHCb experiment	ANDERLINI, Lucio
10:00	[246] Identification of hadronic tau decays using a deep neural network with the CMS experiment at LHC	ANDROSOV, Konstantin
10:15	[1246] A Deep-learning based Full-Event Interpretation (DFEI) algorithm for the identification and hierarchical reconstruction of heavy-hadron decay chains in proton-proton collisions	GARCÍA PARDIÑAS, Julián

Computing and Data handling - Room 12 (Celeste) (11:15 - 13:00)

-Conveners: Daniele Bonacorsi; Andrew McNab

time	[id] title	presenter
11:15	[323] Enabling distributed analysis for ALICE Run 3	CRUCERU, Ionela Lavinia Raluca
11:30	[841] Data Reconstruction for the sPHENIX experiment	CORLISS, Ross
11:45	[557] An intelligent Data Delivery Service (iDDS) for and beyond the ATLAS experiment	GUAN, Wen
12:00	[970] Small experiment, Big Data: the data production of the Muon $g-2$ Experiment	GIROTTI, Paolo
12:15	[994] Offline data processing and analysis at LHCb in the 2020s	FAZZINI, Davide
12:30	[1322] Identification of Beam Particles Using Detectors based on Cerenkov effect and Machine Learning in the COMPASS Experiment at CERN	VOLDŘICH, František

Computing and Data handling - Room 12 (Celeste) (14:30 - 16:30)

-Conveners: Daniele Bonacorsi; James Letts

time	[id] title	presenter
14:30	[1297] Accelerating Machine Learning inference using FPGAs: the PYNQ framework tested on an AWS EC2 F1 Instance	LORUSSO, Marco
14:45	[546] Machine Learning for Real-Time Processing of ATLAS Liquid Argon Calorimeter Signals with FPGAs	FRITZSCHE, Nick
15:00	[513] Hough transform implementation on FPGA for event filtering of HL-LHC	TODOME, Kazuki

15:15	[1263] Unsupervised learning for real-time SUEP detection in a High Level Trigger system at the LHC	Dr CHHIBRA, Simranjit Singh
15:30	[505] Event Filter Tracking for the Upgrade of the ATLAS Trigger and Data Acquisition System	CAVALIERE, Viviana
15:45	[233] The High-Level Trigger for the CMS Phase-2 Upgrade	TOMEI FERNANDEZ, Thiago Rafael
16:00	[1365] Triggerless data acquisition system for the AMBER experiment	ZEMKO, Martin

Computing and Data handling - Room 12 (Celeste) (17:00 - 19:00)

-Conveners: Daniele Bonacorsi; Frank Gaede

time	[id] title	presenter
17:00	[996] Simpler, faster analysis with modern ROOT	GUIRAUD, Enrico
17:15	[1379] SOFIE: C++ Code Generation for Fast Deep Learning Inference	GUIRAUD, Enrico
17:30	[1367] New RooFit developments to speed up your analysis	WOLFFS, Zef
17:45	[1347] pyhf: a pure-Python statistical fitting library with tensors and automatic differentiation	FEICKERT, Matthew
18:00	[418] Developments in Performance and Portability for MadGraph_aMC@NLO	VALASSI, Andrea
18:15	[952] Applying and optimizing the Exa.TrkX Pipeline on the OpenDataDetector with ACTS	Mr HUTH, Benjamin
18:30	[1115] Optimization and Evaluation of Edge Classifying GNNs for Charged Particle Tracking	THAIS, Savannah

Saturday, 9 July 2022

Computing and Data handling - Room 12 (Celeste) (09:00 - 10:45)

-Conveners: Daniele Bonacorsi; Graeme A Stewart

time	[id] title	presenter
09:00	[1065] The IRIS-HEP Analysis Grand Challenge	HELD, Alexander
09:15	[980] EDM4hep - a common event data model for HEP experiments	GAEDE, Frank
09:30	[1041] Key4hep Project Status Update	VOLKL, Valentin
09:45	[1132] Grand Challenge of Software Training in HEP	DECONINCK, Wouter
10:00	[1261] FAIR Principles for data and AI models in high energy physics research and education	ROY, Avik
10:15	[912] Gauss and Gaussino: the LHCb simulation software and its new experiment agnostic core framework.	MAZUREK, Michał

Computing and Data handling - Room 12 (Celeste) (11:15 - 13:00)

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time	[id] title	presenter
11:15	[447] Calorimetry with Graph Neural Networks in CMS	ROTHMAN, Simon
11:30	[109] MadFlow: automating Monte Carlo simulation on GPU for particle physics	Dr CRUZ MARTINEZ, Juan Manuel
11:45	[614] OpenForBC, the GPU partitioning framework	LEGGER, Federica
12:00	[629] QCD tree amplitudes on modern GPUs: A case study for novel event generators	BOTHMANN, Enrico
12:15	[1349] Sustainable Cyberinfrastructure for Matrix Element Analyses through Deep Learning	NEUBAUER, Mark

Computing and Data handling - Room 12 (Celeste) (14:30 - 16:30)

-Conveners: Daniele Bonacorsi; Frank Gaede

time	[id] title	presenter
14:30	[995] Quantum Machine Learning for b-jet identification	ZULIANI, Davide
14:45	[1265] Quantum clustering and jet reconstruction at the LHC	MARTÍNEZ DE LEJARZA, Jorge
15:00	[57] Towards a hybrid operating system for quantum computers	CARRAZZA, Stefano
15:15	[507] Imposing exclusion limits on new physics with machine-learned likelihoods	SANDÁ SEOANE, Rosa María
15:30	[792] Interpretability of an Interaction Network for identifying $H \rightarrow b\bar{b}$ jets	ROY, Avik
15:45	[558] Shared I/O Developments for Run 3 in the ATLAS Experiment	METE, Alaettin Serhan
16:00	[981] Modernisation of the LHCb continuous integration build system	SZYMAŃSKI, Maciej

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time	[id] title	presenter
17:00	[44] Large Scale Data Handling experience at INFN-CNAF Data Center	MORGANTI, Lucia
17:15	[1280] Data-Acquisition System Upgrade at the KOTO Experiment	LIN, Chieh
17:30	[499] TomOpt: Differentiable Optimisation of Muon-Tomography Detectors	STRONG, Giles Chatham
17:45	[947] Software and computing challenges in a Muon Collider Detector	ANDREETTO, Paolo
18:00	[1364] Non-Parametric Data-Driven Background Modelling using Conditional Probabilities	SILVA, Julia Manuela