

25th International Conference on Computing in High Energy & Nuclear Physics

Tuesday 18 May 2021

Artificial Intelligence: Tue AM (10:50 - 11:55)

-Conveners: Simone Pigazzini; Eduardo Rodrigues

time	[id] title	presenter
10:50	[126] C++ Code Generation for Fast Inference of Deep Learning Models in ROOT/TMVA	AN, Sitong
11:03	[187] Deep learning based low-dose synchrotron radiation CT reconstruction	LI, Ling
11:16	[214] Intelligent compression for synchrotron radiation source image	FU, Shiyuan
11:29	[120] Event Classification with Multi-step Machine Learning	SAITO, Masahiko
11:42	[67] The use of Boosted Decision Trees for Energy Reconstruction in JUNO experiment	Mr GAVRIKOV, Arsenii

Artificial Intelligence: Tue PM (15:00 - 16:20)

-Conveners: Patrick Fuhrmann; Sofia Vallecorsa

time	[id] title	presenter
15:00	[69] A Deep Learning approach to LHCb Calorimeter reconstruction using a Cellular Automaton	VALLS CANUDAS, Nuria
15:13	[131] Fast simulation of the electromagnetic calorimeter response using Self-Attention Generative Adversarial Networks	ROGACHEV, Alexander
15:26	[159] Graph Variational Autoencoder for Detector Reconstruction and Fast Simulation in High-Energy Physics	HARIRI, Ali
15:39	[199] Particle identification with an electromagnetic calorimeter using a Convolutional Neural Network	Mr RUA HERRERA, Alex
15:52	[175] Conditional Wasserstein Generative Adversarial Networks for Fast Detector Simulation	BLUE, John

Wednesday 19 May 2021

Artificial Intelligence: Wed AM (10:50 - 12:15)

-Conveners: Agnieszka Dziurda; Joosep Pata

time	[id] title	presenter
10:50	[113] Pixel Detector Background Generation using Generative Adversarial Networks at Belle II	Mr HASHEMI, Hosein
11:03	[163] Machine learning for surface prediction in ACTS	Mr HUTH, Benjamin
11:16	[92] Deep neural network techniques in the calibration of space-charge distortion fluctuations for the ALICE TPC	HELLBAR, Ernst
11:29	[185] Accelerating End-to-End Deep Learning for Particle Reconstruction using CMS open data	DI CROCE, Davide
11:42	[180] Development of FPGA-based neural network regression models for the ATLAS Phase-II barrel muon trigger upgrade	OSPA NOV, Rustem

Artificial Intelligence: Wed PM (17:40 - 19:00)

-Conveners: Joosep Pata; Agnieszka Dziurda

time	[id] title	presenter
17:40	[81] Progress in developing a hybrid deep learning algorithm for identifying and locating primary vertices	AKAR, Simon
17:53	[167] Graph Neural Network for Object Reconstruction in Liquid Argon Time Projection Chambers	HEWES, Jeremy Edmund
18:06	[110] Event vertex reconstruction with deep neural networks for the DarkSide-20k experiment	GOICOECHEA CASANUEVA, Victor
18:19	[212] Evolutionary Algorithms for Tracking Algorithm Parameter Optimization	CHATAIN, Peter
18:32	[76] AI Enabled Data Quality Monitoring with Hydra	BRITTON, Thomas

Thursday 20 May 2021

Artificial Intelligence: Thu AM (10:50 - 12:15)

-Conveners: Gian Michele Innocenti; Jason Webb

time	[id] title	presenter
10:50	[31] Decoding Photons: Physics in the Latent Space of a BIB-AE Generative Network	BUHMANN, Erik
11:03	[146] Distributed training and scalability for the particle clustering method UCluster	SUNNEBORN GUDNADOTTIR, Olga
11:16	[186] Training and Serving ML workloads with Kubeflow at CERN	GOLUBOVIC, Dejan
11:29	[207] Accelerating GAN training using highly parallel hardware on public cloud	DA COSTA CARDOSO, Renato Paulo
11:42	[213] Multi-particle reconstruction in the High Granularity Calorimeter using object condensation and graph neural networks	QASIM, Shah Rukh

Artificial Intelligence: Thu PM (15:00 - 16:20)

-Conveners: Graeme A Stewart; Jason Webb

time	[id] title	presenter
15:00	[128] Physics Validation of Novel Convolutional 2D Architectures for Speeding Up High Energy Physics Simulations	REHM, Florian
15:13	[189] Reframing Jet Physics with New Computational Methods	MACALUSO, Sebastian
15:26	[198] Artificial Proto-Modelling: Building Precursors of a Next Standard Model from Simplified Model Results	WALTENBERGER, Wolfgang
15:39	[169] Jet Single Shot Detection	POL, Adrian Alan
15:52	[179] End-to-End Jet Classification of Boosted Top Quarks with CMS Open Data	BURKLE, Bjorn