ACAT 2019

Monday 11 March 2019

Track 1: Computing Technology for Physics Research (15:30 - 17:30)

-Conveners: Gordon Watts; Patricia Mendez Lorenzo

time	[id] title	presenter
15:30	[468] The Practitioner's C++17 and 20 News	NAUMANN, Axel
15:50	[334] The NanoAOD event data format in CMS	PERUZZI, Marco
16:10	[459] A more Pythonic, Interoperable and Modern PyROOT	HAGEBOECK, Stephan
16:30	[482] ROOT Based Analysis: From Data to Plots, Expressive, Easy and Fast	MONETA, Lorenzo
16:50	[448] New ROOT graphics language	BETSOU, Iliana
17:10	[281] DataForge: declarative approach to scientific data processing automation	Dr NOZIK, Alexander

Track 1: Computing Technology for Physics Research (18:00 - 19:30)

-Conveners: Patricia Mendez Lorenzo; Gordon Watts

time	[id] title	presenter
18:00	[358] Automated and Intelligent Data Migration Strategy in High Energy Physical Storage Systems	CHENG, Zhenjing
18:20	[429] Using DODAS as deployment manager for smart caching of CMS data management system	TRACOLLI, Mirco
18:40	[430] Cross-domain Data Access System for Distributed Sites in HEP	Mr XU, Qi
19:00	[481] Federated data storage evolution in HENP: data lakes and beyond	ZAROCHENTSEV, Andrey

Tuesday 12 March 2019

Track 1: Computing Technology for Physics Research (15:30 - 17:30)

-Conveners: Gordon Watts; Patricia Mendez Lorenzo

time	[id] title	presenter
15:30	[400] The computing model of the LHCb Upgrade	CATTANEO, Marco
15:50	[401] The core software framework for the LHCb Upgrade	NOLTE, Niklas
16:10	[425] An analytics driven computing model for HL-LHC	LANGE, David
16:30	[428] The ATLAS EventIndex and its evolution towards LHC Run 3	VILLAPLANA, Miguel
16:50	[309] Machine Learning Techniques in the ATLAS TDAQ Network Monitoring System	WYSZYNSKI, Oskar

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time	[id] title	presenter
18:00	[345] Heterogenous computing for the local reconstruction algorithms of the CMS calorimeters	MASSIRONI, Andrea
18:20	[379] A 30 MHz software trigger and reconstruction for the LHCb upgrade	FITZPATRICK, Conor
18:40	[338] Continuous Analysis in ATLAS: Running User-Defined Container Images on the Grid	HEINRICH, Lukas Alexander
19:00	[303] FPGA-accelerated machine learning inference as a solution for particle physics computing challenges	NGADIUBA, Jennifer

Wednesday 13 March 2019

Track 1: Computing Technology for Physics Research (15:30 - 17:50)

-Conveners: Patricia Mendez Lorenzo; Gordon Watts

time	[id] title	presenter
15:30	[297] Simulating Diverse HEP Workflows on Heterogeneous Architectures	Dr LEGGETT, Charles
15:50	[301] The Central Hint and Information Processor system for automation, error detection and recovery in the ATLAS TDAQ Controls framework	AVOLIO, Giuseppe
16:10	[305] The “FELIX” detector interface for the ATLAS Trigger and Data Acquisition upgrades and its deployment in the ATLAS Inner Tracker demonstrator setup	SOLANS SANCHEZ, Carlos
16:30	[313] The second generation of the ATLAS Production System: expertise and future evolution	BORODIN, Misha
16:50	[434] Fast Deep Learning on FPGAs for the Phase-II L0 Muon Barrel Trigger of the ATLAS Experiment	FRANCESCATO, Simone
17:10	[465] Towards a heterogeneous High Level Trigger farm for CMS	Dr BOCCI, Andrea

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18:00	[333] CMS Software and Offline preparation for future runs	CMS, Collaboration BOCCALI, Tommaso
18:20	[380] Deep learning for certification of the quality of the data acquired by the CMS experiment	POL, Adrian Alan
18:40	[377] Real-time cluster finding for LHCb silicon pixel VELO detector using FPGA	LAZZARI, Federico
19:00	[386] Migrating large codebases to C++ Modules	TAKAHASHI, Yuka

Thursday 14 March 2019

Track 1: Computing Technology for Physics Research (15:30 - 17:30)

-Conveners: Patricia Mendez Lorenzo; Gordon Watts

time	[id] title	presenter
15:30	[315] Design Pattern for Analysis Automation on Interchangeable, Distributed Resources using Luigi Analysis Workflows	RIEGER, Marcel
15:50	[349] RooFit parallelization efforts	Dr BOS, Patrick
16:10	[366] Core software challenges of the GPU High Level Trigger 1 of LHCb	CAMPORA PEREZ, Daniel Hugo
16:30	[381] Highly performant, Deep Neural Networks with sub-microsecond latency on FPGAs for trigger applications	NOTTBECK, Noel Aaron
16:50	[402] Nested data structures in array and SIMD frameworks	PIVARSKI, Jim
17:10	[417] Vectorization of random number generation and reproducibility of concurrent particle transport simulation	JUN, Soon Yung

Track 1: Computing Technology for Physics Research (18:00 - 20:10)

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time	[id] title	presenter
18:00	[423] Performance results of the GeantV prototype with complete EM physics	GHEATA, Andrei
18:20	[460] Generative Adversarial Networks for fast simulation: generalisation and distributed training in HPC	VALLECORSA, Sofia
18:40	[300] Multi-threaded Event Reconstruction with JANA	LAWRENCE, David
19:00	[469] STAR Data Production Workflow on HPC: Lessons Learned & Best Practices	POAT, Michael PORTER, Jefferson BALEWSKI, Jan