



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

## Monday, November 4, 2019

### Track 5 – Software Development: General frameworks and schedulers - Riverbank R2 (11:00 AM - 12:30 PM)

-Conveners: Martin Ritter

time	[id] title	presenter
11:00	[205] A software framework for FCC studies: status and plans	GANIS, Gerardo
11:15	[205] LArSoft and Future Framework Directions at Fermilab	JONES, Christopher
11:30	[201] ALFA: A framework for building distributed applications	AL-TURANY, Mohammad
11:45	[201] Using OpenMP for HEP Framework Algorithm Scheduling	JONES, Christopher
12:00	[208] Configuration and scheduling of the LHCb trigger application	NOLTE, Niklas
12:15	[109] Allen: A software framework for the GPU High Level Trigger 1 of LHCb	CAMPORA PEREZ, Daniel Hugo

### Track 5 – Software Development: Parallelism, accelerators and heterogenous computing - Riverbank R2 (2:00 PM - 3:30 PM)

-Conveners: Felice Pantaleo

time	[id] title	presenter
2:00 P	[219] Concurrent data structures in the ATLAS offline software	SNYDER, Scott
2:15 P	[267] MarlinMT - parallelising the Marlin framework	ETE, Remi
2:30 P	[202] Bringing heterogeneity to the CMS software framework	GUTSCHE, Oliver
2:45 P	[130] Heterogeneous reconstruction: combining an ARM processor with a GPU	BOCCI, Andrea
3:00 P	[237] GPU Usage in ATLAS Reconstruction and Analysis	KRASZNAHORKAY, Attila
3:15 P	[200] GPU-based Offline Clustering Algorithm for the CMS High Granularity Calorimeter	Mr CHEN, Ziheng

## Tuesday, November 5, 2019

### Track 5 – Software Development: Heterogenous computing and workflow managers - Riverbank R2 (11:00 AM - 12:30 PM)

-Conveners: Felice Pantaleo

time	[id] title	presenter
11:00 AM	[M49] GNA — high performance fitting for neutrino experiments	Dr GONCHAR, Maxim
11:15 AM	[M49] NUMA-aware workflow management system	GYURJYAN, Vardan
11:30 AM	[M50] Heterogeneous data-processing optimization with CLARA's adaptive workload orchestration	GYURJYAN, Vardan
11:45 AM	[M47] Design Pattern for Analysis Automation on Interchangeable, Distributed Resources using Luigi Analysis Workflows	RIEGER, Marcel
12:00 PM	[M49] Raythena: a vertically integrated scheduler for ATLAS applications on heterogeneous distributed resources	MUSKINJA, Miha
12:15 PM	[M45] Computational workflow of the LZ dark matter detection experiment at NERSC	Dr AYYAR, Venkitesh

### Track 5 – Software Development: Software management and packaging - Riverbank R2 (2:00 PM - 3:30 PM)

-Conveners: Mihaela Gheata

time	[id] title	presenter
2:00 PM	[M74] Modern Software Stack Building for HEP	STEWART, Graeme A
2:15 PM	[M43] Gentoo Prefix as a physics software manager	Prof. XU, Benda
2:30 PM	[M11] SpackDev: Parallel Package Development with Spack	SEXTON-KENNEDY, Elizabeth
2:45 PM	[M88] Sustainable software packaging for end users with conda	BURR, Chris
3:00 PM	[M56] CERN AppStore: Development of a multi-platform application management system for BYOD devices at CERN	BATO, Tamas
3:15 PM	[M57] Chopin Management System: improving Windows infrastructure monitoring and management	BUKOWIEC, Sebastian

### Track 5 – Software Development: Testbeds and CI systems - Riverbank R2 (4:30 PM - 6:00 PM)

-Conveners: Jason Webb

time	[id] title	presenter
4:30 PM	[M26] The Scalable Systems Laboratory: a Platform for Software Innovation for HEP	GARDNER JR, Robert William
4:45 PM	[M74] Fast distributed compilation and testing of large C++ projects	MATEV, Rosen
5:00 PM	[M29] Assessing Software Defect Prediction on WLCG Software: a Study with Unlabelled Datasets and Machine Learning Techniques	MARTELLI, Barbara
5:15 PM	[M43] ART - ATLAS Release Tester using the Grid	LAMPL, Walter
5:30 PM	[M93] Evolution of the LHCb Continuous Integration system	Dr CURRIE, Robert Andrew
5:45 PM	[M81] Modernizing the CMS software stack	RODOZOV, Mircho Nikolaev

# Thursday, November 7, 2019

## **Track 5 – Software Development: Common tools 1: GUI, geometry, analysis, data models - Riverbank R2 (11:00 AM - 12:30 PM)**

-Conveners: Mihaela Gheata

time	[id] title	presenter
11:00	<del>A308</del> [A308] New web-based ROOT GUI	LINEV, Serguei
11:15	<del>A302</del> [A302] Recent developments in histogram libraries	SCHREINER, Henry Fredrick
11:30	<del>A307</del> [A307] C++ Modules in ROOT and Beyond	SHADURA, Oksana
11:45	<del>A411</del> [A411] PODIO: recent developments in the Plain Old Data EDM toolkit	GAEDE, Frank-Dieter
12:00	<del>P203</del> [P203] Web-based ROOT geometry viewer	LINEV, Serguei
12:15	<del>P508</del> [P508] mesh2gdml: Importing CAD and meshed geometries into Geant4	GRAF, Norman Anthony

## **Track 5 – Software Development: Common tools 2: Messaging, declarative frameworks, optimizers - Riverbank R2 (2:00 PM - 3:30 PM)**

-Conveners: Jason Webb

time	[id] title	presenter
2:00 P	<del>M144</del> [M144] Event-driven RDMA network communication in the ATLAS DAQ system with NetIO	SCHUMACHER, Jorn
2:15 P	<del>M152</del> [M152] dCache -- Efficient Message Encoding For Inter-Service Communication	Mr MKRTCHYAN, Tigran
2:30 P	<del>M190</del> [M190] EOS Erasure Coding plug-in as a case study for the XRootD client declarative API	HANUSHEVSKY, Andrew Bohdan
2:45 P	<del>M193</del> [M193] Analysis Tools for the VyPR Performance Analysis Framework for Python	DAWES, Joshua Heneage
3:00 P	<del>M178</del> [M178] Vectorized, imperative, and declarative processing of Awkward Arrays	PIVARSKI, Jim
3:15 P	<del>M444</del> [M444] Impact of different compilers and build types on Geant4 simulation execution time	MARCON, Caterina