26TH INTERNATIONAL CONFERENCE ON COMPUTING IN HIGH ENERGY & NUCLEAR PHYSICS (CHEP2023)

Monday, May 8, 2023

Track X - Exascale Science, Heterogeneous Computing and Accelerators, and Quantum Computing: Exascale Computing - Marriott Ballroom VII (11:00 AM - 12:30 PM)

-Conveners: Isabel Campos; Steven Timm

time	[id] title	presenter
11:00 AM	[292] Application of performance portability solutions for GPUs and many-core CPUs to track reconstruction kernels	KWOK, Ka Hei Martin
11:15 AM	[497] INFN and the evolution of distributed scientific computing in Italy	FANZAGO, Federica
11:30 AM	[504] Outlines in hardware and software for new generations of exascale interconnects	Dr MARTINELLI, Michele
11:45 AM	[114] ICSC: The Italian National Research Centre on HPC, Big Data and Quantum Computing	GRANDI, Claudio
12:00 PM	[224] Performance Portability with Compiler Directives for Lattice QCD in the Exascale Era	LIN, Meifeng
12:15 PM	[90] Opticks : GPU Optical Photon Simulation using NVIDIA OptiX 7 and NVIDIA CUDA	Dr LIN, Tao

Track X - Exascale Science, Heterogeneous Computing and Accelerators, and Quantum Computing: Simulaton on Heterogeneous Architectures - Marriott Ballroom VII (2:00 PM - 3:30 PM)

-Conveners: Steven Timm; Roel Aaij

time	[id] title	presenter
2:00 PM	[345] CaTS: Integration of Geant4 and Opticks	WENZEL, Hans
2:15 PM	[356] Madgraph5_aMC@NLO on GPUs and vector CPUs: experience with the first alpha release	HAGEBOECK, Stephan
2:30 PM	[189] Acceleration beyond lowest order event generation	WETTERSTEN, Zenny
2:45 PM	[93] Parallelization of Air Shower Simulation with IceCube	Dr MEAGHER, Kevin
3:00 PM	[310] Celeritas: EM physics on GPUs and a path to full-featured accelerated detector simulation	JOHNSON, Seth

Tuesday, May 9, 2023

Track X - Exascale Science, Heterogeneous Computing and Accelerators, and Quantum Computing: Software tools for Parallel Computing - Marriott Ballroom VII (11:00 AM - 12:30 PM)

-Conveners: Roel Aaij; Isabel Campos

time	[id] title	presenter
11:00 AM	[203] Results from HEP-CCE	LEGGETT, Charles
11:15 AM	[396] Enabling INFN-T1 to support heterogeneous computing architectures	Dr DAL PRA, Stefano
11:30 AM	[326] Using parallel I/O libraries for managing HEP experimental data	BASHYAL, Amit
11:45 AM	[164] Fast, high-quality pseudo random number generators for heterogeneous computing	BARBONE, Marco
12:00 PM	[330] XkitS□A computational storage framework for high energy physics based on EOS storage system	CHENG, Yaodong
12:15 PM	[31] Evaluation of ARM CPUs for IceCube available through Google Kubernetes Engine	SFILIGOI, Igor

Track X - Exascale Science, Heterogeneous Computing and Accelerators, and Quantum Computing: GPUs in Online and Offline - Marriott Ballroom VII (2:00 PM - 3:30 PM)

-Conveners: Isabel Campos; Steven Timm

time	[id] title	presenter
2:00 PM	[63] Running GPU-enabled CMSSW workflows through the production system	KORAKA, Charis Kleio
2:15 PM	[395] LHCb GPU trigger commissioning with first data - LHCb	FITZPATRICK, Conor
2:30 PM	[159] Run-3 Commissioning of CMS Online HLT reconstruction using GPUs	PARIDA, Ganesh
2:45 PM	[481] Integrating LHCb workflows on Supercomputers: State of Practice	BOYER, Alexandre
3:00 PM	[137] Porting ATLAS FastCaloSim to GPUs with Performance Portable Programming Models	LEGGETT, Charles
3:15 PM	[77] Performance of Heterogeneous Algorithm Scheduling in CMSSW	Dr KORTELAINEN, Matti

Track X - Exascale Science, Heterogeneous Computing and Accelerators, and Quantum Computing: Quantum Computing - Marriott Ballroom VII (4:30 PM - 6:00 PM)

-Conveners: Isabel Campos; Roel Aaij

time	[id] title	presenter
4:30 PM	[340] Co-Design of Quantum Hardware and Algorithms in Nuclear and High Energy Physics	FRANZ, Maja
4:45 PM	[313] Towards a hybrid quantum operating system	PASQUALE, Andrea
5:00 PM	[277] Precise Image Generation on Current Noisy Quantum Devices	VARO, Valle
5:15 PM	[146] Application of quantum computing techniques in particle tracking at LHC	CHAN, Wai Yuen
5:30 PM	[328] Connecting HEPCloud with quantum applications using the Rigetti platform	TIMM, S.
5:45 PM	[375] B Meson Flavour Tagging via Continuous Variable Quantum Support Vector Machines	WEST, Maxwell

Thursday, May 11, 2023

Track X - Exascale Science, Heterogeneous Computing and Accelerators, and Quantum Computing: FPGA and Inference Servers - Marriott Ballroom VII (11:15 AM - 12:45 PM)

-Conveners: Steven Timm; Roel Aaij

time	[id] title	presenter
11:15 AM	[314] EJFAT: Accelerated Intelligent Compute Destination Load Balancing	GOODRICH, Michael
11:30 AM	[192] KServe inference extension for a FPGA vendor-free ecosystem	CIANGOTTINI, Diego
11:45 AM	[247] Portable Acceleration of CMS Mini-AOD Production with Coprocessors as a Service	MCCORMACK, William
12:00 PM	[80] Evaluating Performance Portability with the CMS Heterogeneous Pixel Reconstruction code	Dr KORTELAINEN, Matti
12:15 PM	[512] FPGA-based real-time cluster finding for the LHCb silicon pixel detector	BASSI, Giovanni
12:30 PM	[500] APEIRON: a Framework for High Level Programming of Dataflow Applications on Multi-FPGA Systems	ROSSI, Cristian

Track X - Exascale Science, Heterogeneous Computing and Accelerators, and Quantum Computing: Quantum Computing Applications - Marriott Ballroom VII (2:00 PM - 3:30 PM)

-Conveners: Roel Aaij; Isabel Campos

time	[id] title	presenter
2:00 PM	[398] High-Throughput Machine Learning Inference with NVIDIA TensorRT	AAIJ, Roel
2:15 PM	[410] First Measurements With A Quantum Vision Transformer: A Naive Approach	PASQUALI, Dominic
2:30 PM	[431] The Role of Data in Projected Quantum Kernels: the Higgs Boson Discrimination	VALLECORSA, SOFIA
2:45 PM	[437] Hybrid actor-critic scheme for quantum reinforcement learning	VALLECORSA, SOFIA
3:00 PM	[471] Improving Noisy Hybrid Quantum Graph Neural Networks for Particle Decay Tree Reconstruction	STROBL, Melvin
3:15 PM	[466] Symmetry Invariant Quantum Machine Learning models for classification problems in Particle Physics	Mr HEREDGE, Jamie