

Conference on Computing in High Energy and Nuclear Physics

Monday 21 October 2024

Poster session: Presentation with coffee - Exhibition Hall (15:18 - 16:15)

[id] title	presenter	board
[74] ATLAS analysis workflows using the EventIndex and the Event Picking Server for massive event picking and enhanced processing	BARBERIS, Dario	
[8] Time-Of-Flight Correction for Hadrons at BES experiment	WANG, Xinnan	
[476] A Geometry Agnostic Heterogenous Framework for Track Reconstruction for HEP Experiments	DI FLORIO, Adriano	
[69] Computing and machine learning for the SHiP experiment	LANTWIN, Oliver	
[276] Unsupervised Learning Techniques for Identification of Anomalous LZ Data	WINNICKI, John	
[75] Recent Advances in the GAN-based Fast Calorimeter Simulation of the ATLAS Experiment	CORCHIA, Federico Andrea	
[104] Scaling TraceWin beam dynamics simulations on Kubernetes for Reinforcement Learning training	LUPU, Daniel	
[93] The Electronics Simulation Software in JUNO	ZHANGHAOSEN, 张昊森	
[169] QDIPS: Deep Sets Network for FPGA investigated for high speed inference on ATLAS	ANTEL, Claire	
[48] Running version control systems and continuous integration to fulfill CERN and LHC experiments needs	POSADA TROBO, Ismael	
[160] Continuous integration of analysis workflows on a distributed analysis facility	BARTOLINI, Matteo	
[54] Accounting of (HPC) computing resources with AUDITOR	BOEHLER, Michael	
[165] Turning CephFS into a collaborative cloud storage with CERNBox	LO PRESTI, Giuseppe	
[9] Development of Auto-Validation System of BOSS	JIANG, Di YUAN, Ye	
[79] New approaches for fast and efficient graph construction on CPU, GPU and heterogeneous architectures for the ATLAS event reconstruction	Dr COLLARD, Christophe	
[23] dE/dx Software in the BESIII Experiment	FANG, Wenxing	
[40] Docu-Bot: AI assisted user support	CHUDOBA, Jiri	
[15] HPSS Batch Application	SPRADLEY, Justin	
[67] Exploring Data Caching Policy with Data Access Patterns from dCache Logs	WU, John	
[52] Ending the Analogue Telephony Era	SIERRA, Rodrigo	
[138] Migration of CADI to Fence	IMRAN, Muhammad	
[97] interTwin - an interdisciplinary Digital Twin Engine for Science	BUNINO, Matteo	
[55] Scalable and multi-tenant Kubernetes ingress infrastructure	HENSCHHEL, Jack	
[66] Tracking efficiency studies for LHCb in Run 3	CASPARY, Rowina	
[90] Machine Learning Inference in Athena with ONNXRuntime	JU, Xiangyang	

[153] Particle Flow Reconstruction with Alpaka Portability Library	SAMUDIO, Jonathan	
[145] CMS L1 Data Scouting for HL-LHC	SIEDER, Leah-Louisa	
[161] The git based ATLAS data acquisition configuration service in LHC Run 3	SOLOVIEV, Igor	
[33] Porting MADGRAPH to FPGA using High-Level Synthesis (HLS)	GUTIERREZ ARANCE, Hector	
[112] EDM4hep.jl: Analysing EDM4hep files with Julia	MATO, Pere	
[27] Common Analysis Tools in CMS	LANGE, Clemens	
[43] A new SymPy backend for vector: uniting experimental and theoretical physicists	CHOPRA, Saransh	
[20] Streamlining ATLAS Monte-Carlo Generator Validation with PAVER	□SCHMIDT, Mustafa Andre	
[21] Normalizing Flows for Physics Data Analyses	GAVRANOVIC, Jan	
[60] S3 Compatibility: Enabling Seamless Integration with EOS, CERN's Large-Scale Disk Storage System	PETERS, Andreas Joachim SINDRILARU, Elvin Alin MASCETTI, Luca	
[63] Advancements and Operations for LHC Run-3 and beyond	PETERS, Andreas Joachim SINDRILARU, Elvin Alin	
[167] Performance of the ATLAS GNN4ITk Particle Track Reconstruction GPU pipeline	POREBA, Aleksandra	
[171] Updates of the ATLAS High-Level Trigger in Run 3	PRZYGODA, Witold	
[5] Library for Functional analysis in CERN's ROOT	BOLD, Tomasz	Monday 1

Tuesday 22 October 2024

Poster session: Presentation with coffee - Exhibition Hall (15:18 - 16:15)

[id] title	presenter	board
[201] Leveraging Language Models for Enhanced Code Review in Particle Physics Software Development	RYBALCHENKO, Alexey	
[283] Surrogate Modeling for Scalable Evaluation of Distributed Computing Systems for HEP applications	SCHMID, Larissa	
[280] ATLAS Tile Calorimeter Software Tools for Data Quality Monitoring	SUCHY, Daniel	
[212] Managing accelerator control systems with Kubernetes at CERN	GAPONCIC, Diana TRIGAZIS, Spyridon	
[268] Decode the Workload: Training Deep Learning Models for Efficient Compute Cluster Representation	JESKE, Torri	
[225] Portable HCAL reconstruction in the CMS detector using the Alpaka library	KWOK, Ka Hei Martin	
[292] Evaluating a File-Based Event Builder to enhance the Data Acquisition in the CMS Experiment	PETRUCCI, Andrea	
[258] Microservices framework and configuration database for ATLAS ITk	SCHMEING, Jonas	
[240] ATLAS usage of the Czech national HPC center: HyperQueue, cvmfsexec, and other news	SVATOS, Michal	
[217] Facilitating Scientific Reproducibility and Interoperability through CWL Integration in the Dirac Grid Middleware	PIGOUX, Natthan	
[264] Investigating Data Access Models for ATLAS: A Case Study with FABRIC Across Borders and ServiceX	VUKOTIC, Ilija	
[216] PATOF: From the Past To the Future: Legacy Data in Small and Medium-Scale "PUNCH" Experiments - a Blueprint for PUNCH and Other Disciplines	HU, Ding-Ze	
[234] ATLAS Qualification interface refactoring strategy	NIKLAUS MOREIRA DA ROCHA RODRIGUES, Carolina	
[253] Performance studies for ATLAS workloads in many-core Grid and HPC environments	SCIACCA, Gianfranco	
[296] Integrated Research Infrastructure with JIRIAF	SAWATZKY, Brad	
[274] Xiwu: A basic flexible and learnable LLM for High Energy Physics	LI, Ke Mr CHEN, Siyang ZHANG, Yiyu ZHANG, Zhengde	
[275] Boost physics study at HEP experiments with Dr. Sai	LI, Ke Mr LIAO, Yipu ZHANG, Yiyu ZHANG, Zhengde	
[185] Using S3 storage with xrootd vs Dynafed	Dr EBERT, Marcus	
[193] ATLAS software tools to handle ROOT RNTuple	RYBKIN, Grigori	
[208] dCache-CTA Integration: One Year in Production at DESY	KARIMI, Mwai	
[247] Looking back on 23 years of the ATLAS Metadata Interface (AMI): Reflections on database architecture and ongoing developments in preparation for Run 4	Dr ODIER, Jerome	

[178] Deployment of inference as a service at the US CMS Tier-2 data centers	PEDRO, Kevin	
[207] TechWeekStorage24: Open Source Data Technologies for the Exabyte Era	PETERS, Andreas Joachim MOSCICKI, Jakub MASCETTI, Luca DAVIS, Michael KEEBLE, Oliver	
[272] How to make kubernetes easy to use for thousands users	PIMPO, Alberto POSADA TROBO, Ismael	
[211] Prometheus-Powered Insight: Monitoring Koji's performance	VILA FERNANDES, Marta	
[236] The evolution of the CMS@Home project	FANZAGO, Federica	
[305] Experience with ARM WNs at the WLCG Tier1 GridKa	SCHNEPF, Matthias Jochen	
[202] Application of quantum graph neural network on detector data	OH, Jihwan	
[206] Particle Identification Algorithms Based on Machine Learning for STCF	ZHAI, Yuncong	
[238] Tracking for long-lived particles at STCF	ZHOU, Hang	
[173] Integrating FPGA Accelerators in Athena for use at the ATLAS Event Filter	ANTEL, Claire	
[209] Evaluating FPGA Acceleration with Intel® oneAPI Toolkit for High-Speed Data Processing	PISANI, Flavio	
[176] ML-based classification in an open-source framework for the ALICE heavy-flavour analysis	CAMERLINGO, Maria Teresa	
[260] A simplified configuration for common algorithms for ATLAS analysis	MAROUN, Matthew Kenneth	
[286] OMS Data Aggregation and Management in the CMS Experiment	PETRUCCI, Andrea	

Wednesday 23 October 2024

Poster session: Presentation with coffee - Exhibition Hall (15:18 - 16:15)

[id] title	presenter	board
[444] Exploiting Kubernetes to Simplify the Deployment and Management of the Multi-purpose CMS Pilot Job Factory	MASCHERONI, Marco	
[428] Likelihood analysis methods for the PID system of STCF experiment	Dr QI, Binbin	
[341] Object storage model for CMS data	SMITH, Nick	
[439] Simulation of a MPGD-based hadronic calorimeter for Muon Collider experiments	RADOGNA, Raffaella	
[372] Di-Muon cocktail reconstruction using Machine Learning technique in CBM experiment at FAIR SIS100 energies	Mr SHARMA, Pawan Kumar	
[408] Data-flow parallelism for high-energy and nuclear physics frameworks	KNOEPFEL, Kyle	
[328] Parsing TTreeFormula in Python	ROY, Aryan	
[435] Track classification in Active Target Time Projection Chamber using supervised machine learning methods	DAS, Pralay Kumar	
[363] Packaging HEP heterogeneous mini-apps for portable benchmarking and facility evaluation on modern HPCs	Dr LEGGETT, Charles	
[350] Research on Wide Area Network Performance Anomaly Detection Technology Based on Machine Learning	CHENGLI, □□	
[321] AI-based approach for provider selection in the INDIGO PaaS Orchestration System of INFN Cloud	VIANELLO, Enrico	
[450] The CloudVeneto's Container-as-a-Service ecosystem	ZANGRANDO, Lisa VERLATO, Marco	
[383] Scientific NREC Cluster - a fast and flexible solution for virtual computing clusters on OpenStack	MOUTOUSSAMY, Emmanuel	
[417] Event Workflow Management System - A SaaS Solution for Massively Divisible and Distributed Workflows	EVANS, Ric	
[404] Orchestrated columnar-based analysis with columnflow	FRAHM, Mathis	
[402] Just-in-time workflow management for DUNE	MCNAB, Andrew	
[361] Automation and Job Management for LZ Simulations at NERSC	SINISCALCO, Jacopo	
[422] IceSONIC - Network AI Inference on Coprocessors for IceCube Offline Processing	RIEDEL, Benedikt	
[347] Keep-up Production in JUNO's Offline Data Processing	YINWQ, □□□	
[426] Comprehensive Description and Orchestration of Complex Data Processing Pipelines	Dr GYURJYAN, Vardan	
[396] Benchmarking XRootD-HTTPS on 400Gbps Links with Variable Latencies	ARORA, Aashay	
[387] Design and construction of High Energy Photon Source (HEPS) scientific data storage system	HU, Qingbao CHENG, Yaosong	
[427] Development of a WebRTC-Based Remote Desktop for Neutron Scattering Data Analysis on Openstack	LIYK, □□□	
[329] CppInterOp: Advancing Interactive C++ for High Energy Physics	JOMY, Aaron	
[430] ProtoDUNE Run Conditions Database	Dr KIRBY, Michael	

[440] Belle II Network Performance Analysis in the Context of the WLCG Data Challenge 2024	PARDI, Silvio	
[308] Automated Template Testing and Management with GitLab Continuous Integration for AMS Offline Computing	SHAN, Baosong	
[307] The End of an Era: Termination of the Meyrin Data Centre Console Service	DAVIES, Joel Murray	
[324] Six months of Single Sign On on Kubernetes	NAPPI, Antonio	
[419] Application of linear and non-linear constraints in a brute-force based alignment approach for CBM	BLUHME, Nora	
[442] Kalman filter for muon reconstruction in the CMS Phase-2 endcap calorimeter	MATTHEWMAN, Mark Nicholas	
[448] RICH ring reconstruction using machine learning for CBM	BEYER, Martin	
[336] Heterogeneous reconstruction of hadronic Particle Flow clusters with the Alpaka Portability Library	SAMUDIO, Jonathan	
[323] A Streamlined Neural Model for Real-Time Analysis at the First Level of the LHCb Trigger	ZHUO, Jiahui SVINTOZELSKYI, Volodymyr	
[377] FPGA implementation of the General Triplet Track Fit	TASTEPE, Kadir Murat	
[331] User sharing of computational workflows in the REANA reproducible analysis platform	DONADONI, Marco	
[334] EvtGen – on its first steps towards thread safety	Dr ABUDINÉN, Fernando	

Thursday 24 October 2024

Poster session: Presentation with coffee - Exhibition Hall (15:18 - 16:15)

[id] title	presenter	board
[512] Evolution of Regional, Age and Gender Demographics in the ATLAS Collaboration	WATTS, Gordon	
[571] Integrating IPbus ALFRED into the ALICE-FIT setup	Mr ROSLON, Krystian	
[555] An automation framework for the calibration of the CMS Precision Proton Spectrometer	BELLORA, Andrea	
[487] Label-based virtual directories in the dCache storage system	SAHAKYAN, Marina	
[546] ProtoDUNE-HD Offline Data Processing Strategy	CHOWDHURY, Barnali	
[539] Quantifying the computational speedup with MG4GPU for CMS workflows	CHOI, Jin	
[477] MEASUREMENT OF PROPAGATION TIME WITH THE USE OF FPGA DEVICES IN ALICE EXPERIMENT AT CERN	SAVCHENKO, Oleksandr	
[492] Adaptive Hough Transform for Charged Particles Tracking at the LHC	HORODENSKI, Stefan Michal	
[529] Real-time Level-1 Trigger Data Scouting at CMS using CXL Memory Lake	LAZZARI MIOTTO, Giovanna	
[513] A Cloud oriented platform to exploit ANSYS application	VIANELLO, Enrico	
[461] LbMCSubmit: Streamlined production and submission of LHCb MC requests	MUHAMMAD, Emir	
[519] GlideinBenchmark: collecting resource information to optimize provisioning	MAMBELLI, Marco	
[526] Towards more efficient job scheduling in ALICE: predicting job execution time using machine learning	LELEK, Tomasz Marcin	
[547] FORM, a Fine-grained Object Reading/Writing Model for DUNE	CHOWDHURY, Barnali	
[485] Operations Developments at the National Analysis Facility at DESY	BEYER, Christoph HARTMANN, Thomas KEMP, Yves	
[479] Experiences from the CBM collaboration: CAD to ROOT conversion for detector geometries	NEUHAUS, Simon Nicklas CLERKIN, Eoin	
[462] Versioning of the LHCb DD4Hep-based Detector Description	XU, Menglin	
[497] Collaborative Tools for the ePIC Experiment	POTEKHIN, Maxim	
[505] Identification of muon-electron elastic events using Graph Neural Networks for precision measurements.	HESS, Emma	
[530] Harnessing the power of neural networks to identify and locate primary vertices in proton-proton collision data	GARG, Rocky Bala	
[486] Modular Experiment Control System packages for the CBM experiment	LOIZEAU, Pierre-Alain	
[522] Geant4 models for nuclear de-excitation	DIEDERICHS, Severin	
[540] Bamboo: A high-level HEP analysis library for ROOT::RDataFrame	LIDRYCH, Jindrich GÜZEL, Oğuz	
[471] KKMCEE: Multiphoton MC for lepton and quark pair production at lepton colliders	SIODMOK, Andrzej Konrad	
[523] Zero Degree Calorimeter fast simulation with normalizing flows	MAJERZ, Emilia	

[537] Refining FastSim with Machine Learning	GUNGORDU, Acelya Deniz BONCUKCU, Dorukhan	
[475] A point library for the fast simulation of the LHCb Calorimeter	RAMA, Matteo KHOLODENKO, Sergey	
[460] Implementing XRootD/SciToken-Based Access to Lustre Storage at GSI: A First Step Toward Data Federation for FAIR	SPRECKELS, Rouven FLEISCHER, Soren Lars Gerald	
[478] Up-scaling for measuring the spatial distribution of radiation dose for applications in the preparation of individual patient treatment plans	KALECIŃSKA, Kamila	
[489] A Managed Tokens Service for Securely Keeping and Distributing Grid Tokens	SMITH, Nick	
[518] Hadronization effects using String and Cluster Models in Herwig 7	SARMAH, Pratixan	
[534] Real-time monitoring of LHCb interaction region with a fast trackless methodology	CORDOVA, Giulio	