

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

Monday, May 8, 2023

Track 3 - Offline Computing: Reconstruction - Hampton Roads Ballroom VI (11:00 AM - 12:30 PM)

-Conveners: Marilena Bandieramonte; Norraphat Srpimanobhas

| time | [id] title | presenter |
|-------|---|-----------------------------|
| 11:00 | A174 [M174] Machine learning for ambiguity resolution in ACTS | ALLAIRE, Corentin |
| 11:15 | A212 [M212] Generalizing mkFit and its Application to HL-LHC | TADEL, Matevz |
| 11:30 | A312 [M312] tracc - a close to single-source track reconstruction demonstrator for CPU and GPU | KRASZNAHORKAY, Attila |
| 11:45 | A317 [M317] GPU-based algorithms for primary vertex reconstruction at CMS | ERICE CID, Carlos Francisco |
| 12:00 | P408 [M408] The Exa.TrkX Project | CALAFIURA, Paolo |
| 12:15 | P410 [M410] Faster simulated track reconstruction in the ATLAS Fast Chain | Dr LEIGHT, William |

Track 3 - Offline Computing: Physics performance (part I) - Hampton Roads Ballroom VI (2:00 PM - 3:30 PM)

-Conveners: Tingjun Yang; Norraphat Srpimanobhas

| time | [id] title | presenter |
|--------|--|-------------------|
| 2:00 P | M165 [M165] Investigating mixed-precision for AGATA pulse-shape analysis | MOLINA, Roméo |
| 2:15 P | M179 [M179] Kiwaku, a C++20 library for multidimensional arrays, applied to ACTS tracking | Mr JOUBE, Sylvain |
| 2:30 P | M407 [M407] A physical dimensions aware evaluator for High Energy Physics applications | CLEMENCIC, Marco |
| 2:45 P | M421 [M421] Physics Performance of the ATLAS GNN4ITk Track Reconstruction Chain | JU, Xiangyang |
| 3:00 P | M489 [M489] Calibration Data Flow and Performance at Belle II | PRIM, Markus |
| 3:15 P | M52 [M52] EIC Software Overview | LAWRENCE, David |

Tuesday, May 9, 2023**Track 3 - Offline Computing: Physics performance (part 2) - Hampton Roads Ballroom VI (11:00 AM - 12:30 PM)****-Conveners: Tingjun Yang; Norraphat Srpimanobhas**

| time | [id] title | presenter |
|-------|--|--------------------|
| 11:00 | A108 [A108] Algorithms: Framework- and Experiment-independent algorithms at EPIC | JOOSTEN, Sylvester |
| 11:15 | A144 [A144] Performance of track reconstruction at STCF using ACTS | LI, Teng |
| 11:30 | A110 [A110] Flexible, robust and minimal-overhead Event Data Model for track reconstruction in ACTS | Dr GESSINGER, Paul |
| 11:45 | A104 [A104] Multithreading ATLAS offline software: a retrospective | SNYDER, Scott |
| 12:00 | P154 [P154] Machine Learning Tools for the CMS Tracker Data Quality Monitoring and Certification | BENELLI, Gabriele |

Track 3 - Offline Computing: Data preparation (part I) - Hampton Roads Ballroom VI (2:00 PM - 3:30 PM)**-Conveners: Marilena Bandieramonte; Norraphat Srpimanobhas**

| time | [id] title | presenter |
|--------|--|---------------------------------|
| 2:00 P | M126 [M126] CMS Tier0 data processing during the detector commissioning in Run-3 | AMADO, Jhonatan |
| 2:15 P | M176 [M176] JUNO Offline Software for Data Processing and Analysis | HUANG, Xingtao |
| 2:30 P | M117 [M117] Repurposing of the Run 2 CMS High Level Trigger Infrastructure as an Cloud Resource for Offline Computing | MASCHERONI, Marco |
| 2:45 P | M165 [M165] Offline Data Processing Software for the Super Tau Charm Facility | LI, Teng |
| 3:00 P | M181 [M181] Status of DUNE Offline Computing | KIRBY, Michael |
| 3:15 P | M164 [M164] DUNE Database Development | Dr VIZCAYA HERNANDEZ, Ana Paula |

Track 3 - Offline Computing: Simulation (part 2) - Hampton Roads Ballroom VI (4:30 PM - 6:15 PM)**-Conveners: Tingjun Yang; Marilena Bandieramonte**

| time | [id] title | presenter |
|--------|--|-----------------------|
| 4:30 P | M149 [M149] EvtGen – recent developments and prospects | ABUDINÉN, Fernando |
| 4:45 P | M179 [M179] Introducing HIJING++: the Heavy Ion Monte Carlo Generator for the High-Luminosity LHC Era | KRASZNAHORKAY, Attila |
| 5:00 P | M166 [M166] Surface-based GPU-friendly geometry modeling for detector simulation | GHEATA, Andrei |
| 5:15 P | M163 [M163] Accelerated demonstrator of electromagnetic Particle Transport (AdePT) status and plans | GHEATA, Andrei |
| 5:30 P | M128 [M128] A parameter optimisation toolchain for Monte Carlo detector simulation | VOLKEL, Benedikt |
| 5:45 P | M152 [M152] Optimizing Geant4 Hadronic Model Parameters Through Global Fits to Thin Target Data | YARBA, Julia |

Thursday, May 11, 2023**Track 3 - Offline Computing: Simulation (part 3) - Hampton Roads Ballroom VI (11:15 AM - 12:45 PM)****-Conveners: SOFIA VALLECORSA; Marilena Bandieramonte**

| time | [id] title | presenter |
|-------|---|--------------------|
| 11:15 | P304 [A304] Analysis Tools in Geant4 | HRIVNACOVA, Ivana |
| 11:30 | P445 [A445] Geant4 electromagnetic physics for Run3 and Phase2 LHC | Dr SAWKEY, Daren |
| 11:45 | P105 [A105] Refined drift chamber simulation in the CEPC experiment | Dr FANG, Wenxing |
| 12:00 | P344 [A344] Simulation of the MoEDAL-MAPP experiment at the LHC | KALLIOKOSKI, Matti |
| 12:15 | P218 [A218] Recent Developments in the FullSimLight Simulation Tool from ATLAS | Mr KHAN, Raees |
| 12:30 | P408 [A408] Full Simulation of CMS for Run-3 and Phase-2 | SRIMANOBHAS, Phat |

Track 3 - Offline Computing: Data Preparation (part 2) - Hampton Roads Ballroom VI (2:00 PM - 3:30 PM)**-Conveners: Xavier Espinal; Tingjun Yang**

| time | [id] title | presenter |
|--------|---|---------------------|
| 2:00 P | M403 [M403] Framework for custom event sample augmentations for ATLAS analysis data | VAN GEMMEREN, Peter |
| 2:15 P | M19 [M19] Optimizing ATLAS data storage: the impact of compression algorithms on ATLAS physics analysis data formats | Dr MARCON, Caterina |
| 2:30 P | M429 [M429] Towards a distributed heterogeneous task scheduler for the ATLAS offline software framework | ESSEIVA, Julien |
| 2:45 P | M06 [M06] Current Status and Future Developments for Automation of Data Calibration and Processing Procedures at the Belle II Experiment | DOSSETT, David |
| 3:00 P | M71 [M71] RenderCore – a new WebGPU-based rendering engine for ROOT-EVE | TADEL, Matevz |
| 3:15 P | M29 [M29] Potentiality of automatic parameter tuning suite available in ACTS track reconstruction software framework | GARG, rocky |