# Connecting The Dots 2022

# Tuesday 31 May 2022

**Plenary** (09:00 - 10:30)

 -**Conveners: Salvador Marti I Garcia**

| time | [id] title | presenter |
|------|-----------|-----------|
| 09:00 | [44] Welcome and Introduction | LANGE, David |
| 09:30 | [33] Allen in the First Days of Run 3 | BOETTCHER, Thomas |
| 10:00 | [19] Deep Learning Track Reconstruction for TeV-PeV Cosmic Rays in Space | TYKHONOV, Andrii |

**Plenary - PCTS conference room 4th floor (11:00 - 12:30)**

 -**Conveners: Salvador Marti I Garcia**

| time | [id] title | presenter |
|------|-----------|-----------|
| 11:00 | [18] Track Finding and Neural Network-Based Primary Vertex Reconstruction with FPGAs for the Upgrade of the CMS Level-1 Trigger System | BROWN, Christopher Edward |
| 11:30 | [46] The Tracking at Belle II | ZLEBCIK, Radek<br>ZLEBCIK, Radek |
| 12:00 | [43] Learning to Discover workshops | SALZBURGER, Andreas |

**Plenary - PCTS Conference room, 4th floor (14:00 - 15:30)**

 -**Conveners: Markus Elsing**

| time | [id] title | presenter |
|------|-----------|-----------|
| 14:00 | [14] Implementation of ACTS into LDMX track reconstruction | BUTTI, Pierfrancesco |
| 14:30 | [10] Line Segment Tracking in the HL-LHC | SATHIA NARAYANAN, Balaji Venkat |
| 15:00 | [9] traccc - GPU Track reconstruction demonstrator for HEP | YEO, Beomki |

**Plenary - PCTS conference room (4th floor) (16:00 - 18:00)**

 -**Conveners: Markus Elsing**

| time | [id] title | presenter |
|------|-----------|-----------|
| 16:00 | [21] ATLAS ITk Track Reconstruction with a GNN-based Pipeline | ROUGIER, Charline |
| 16:30 | [1] Graph Neural Networks for Pattern Recognition & Fast Track Finding | LAD, Nisha |
| 17:00 | [22] Graph Neural Networks for Charged Particle Tracking on FPGAs | ELABD, Abdelrahman |

# Wednesday 1 June 2022

### <u>Plenary</u> - PCTS conference room (4th floor) (09:00 - 10:30)

**-Conveners: Andreas Salzburger**

| time | [id] title | presenter |
|---|---|---|
| 09:00 | [24] Vecpar - a portable parallelization library | MANIA, Georgiana |
| 09:30 | [47] Present and future of online tracking in CMS | DI FLORIO, Adriano |
| 10:00 | [37] Accelerated graph building for particle tracking graph neural nets | VAGE, Liv Helen |

### <u>Plenary</u> - PCTS conference room (4th floor) (14:00 - 15:30)

**-Conveners: Isobel Ojalvo**

| time | [id] title | presenter |
|---|---|---|
| 14:00 | [13] Event Filter Tracking for the Upgrade of the ATLAS Trigger and Data Acquisition System | MASIK, Jiri |
| 14:30 | [20] 4D Track Reconstruction at the sPHENIX Experiment | OSBORN, Joe |
| 14:55 | [6] The ATLAS Inner Detector tracking trigger at 13 TeV in LHC Run-2 and new developments on standard and unconventional tracking signatures for the upcoming LHC Run-3 | LONG, Jonathan |

### <u>Plenary</u> - PCTS conference room (4th floor) (16:00 - 17:45)

**-Conveners: Isobel Ojalvo**

| time | [id] title | presenter |
|---|---|---|
| 16:00 | [35] Towards a Track Condensation Network | DEZOORT, Gage |
| 16:20 | [27] Graph Neural Network for Three Dimensional Object Reconstruction in Liquid Argon Time Projection Chambers | GUMPULA, Kaushal |
| 16:50 | [29] Fast and flexible data structures for the LHCb run 3 software trigger | ESEN, Sevda |

# Thursday 2 June 2022

**Plenary - PCTS conference room (4th floor) (09:00 - 10:00)**

**-Conveners: Paolo Calafiura**

| time | [id] title | presenter |
|---|---|---|
| 09:00 | [28] Tracking on GPU at LHCb's fully software trigger | SCARABOTTO, Alessandro |
| 09:30 | [32] Track reconstruction in the LUXE experiment using quantum algorithms | SPATARO, David |

**Plenary - PCTS conference room (4th floor) (13:30 - 15:00)**

**-Conveners: Michel De Cian**

| time | [id] title | presenter |
|---|---|---|
| 13:30 | [45] Track Reconstruction at the Electron-Ion Collider | LI, Shujie |
| 14:00 | [40] Application of machine learning in muon scattering tomography for better image reconstruction | Dr TRIPATHY, Sridhar |
| 14:30 | [31] Real-time alignment procedure at the LHCb experiment for Run3 | REISS, Florian |