

EP R&D Software

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R&D
on EXPERIMENTAL TECHNOLOGIES

CERN's Experimental Physics Department has launched a process to define its R&D programme on new Experimental Technologies. The R&D work will span a 5 year period from 2020 onwards with a possible extension for another 2 years and cover detector hardware, electronics and software for new experiments and detector upgrades beyond LHC Phase-II.

1st Workshop
16 March 2018 (full day)
CERN, main auditorium

Please register!
<http://indico.cern.ch/e/EP-RD-workshop1>

4 working group sessions
Special R&D proposals

- Silicon detectors
- Gas detectors
- Calorimetry and light based detectors
- Detector Electronics
- IC Technologies
- High Speed Links
- Software
- Detector Magnets

 Experimental Physics
Department
HEAD OF EXPERIMENTAL TECHNOLOGIES

Personnel News

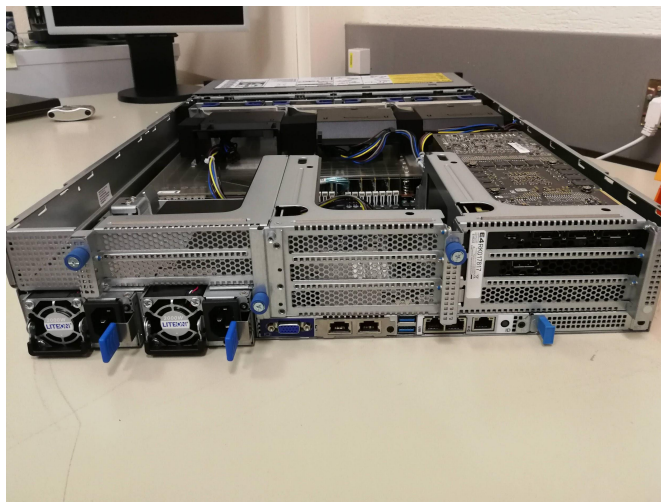
- Erica Brondolin started in the Reconstruction Calorimetry task in July
- Javier Lopez-Gomez started this month in the Analysis task

Welcome!

- Submitted an IRIS-HEP fellowship project on first RNTuple-CMSSW integration (Max Orok, former ROOT GSoC student)
- For the Faster Simulation task, Dalila Salamani will start in January 2021

Hardware News

- Machine for Simulation Task has arrived
 - Powerful GPU setup, twin NVIDIA RTX8000 GPUs
 - 128GB memory
 - 2 x AMD EPYC Rome 16 core 2.8GHz
 - Machine was checked in EP, then re-shipped to IT for installation
- Machine for Tracking Task has been ordered
 - Multi-thread, AMD Ryzen Threadripper 3970X 32 core, 64 threads 3.7GHz
 - With an NVIDIA T4 GPU
 - Purchase order was issued in July, but components were delayed
 - Expect delivery in October
- Machine for Analysis Task
 - Under discussion now with IT for procurement
 - Basic idea: lots of I/O bandwidth with PCIe 4.0 SSD RAID and 1 or 2 40Gbit NICs



This Meeting and Next

- Today we look at the Turnkey stack again...
- Between now and Christmas plan to cover each of the other active projects
 - Reconstruction tracking
 - Reconstruction calorimetry
 - Analysis
- So this will be naturally one meeting in October, November, December