Session Program

30 September 2024 to 4 October 2024



TWEPP 2024 Topical Workshop on Electronics for Particle Physics

Tuesday posters session

Grosvenor hotel 1-9 Grosvenor Terrace, Glasgow G12 0TB.

Tuesday 1 October

16:40 **Tuesday posters session** Poster Session | Location: Grosvenor Suite Theatre FPGA Emulation of the Digital Readout of a HV-CMOS sensor chip: MightyPix for LHCb Upgrade II Speaker Ayushi Khatri Back-end DAQ system prototype testing and integration on a full detector test system for the CMS HGCAL detector Speaker Martim Rosado **Optimisation and Validation of Power Delivery Networks for Multi-Gigabit Data** Links Speaker Francesco Martina Spatial resolution performance of 65 nm CMOS MAPS with analogue output for the ALICE ITS3 upgrade Speaker **Riccardo Ricci** First results of an evaluation of 100Gb/s Ethernet as a future HEP readout link Speaker Valentin Stumpert On-detector power distribution for CMS-HGCAL: a busbar-based approach Speaker Pablo Daniel Antoszczuk Reliability Tests of the SFP+ Transceivers and the TGC Readout Board for the **ATLAS Experiment at HL-LHC** Speaker Daisuke Hashimoto **CosmoLink: Portable Coincidence Detector for On-Site Muon Flux Measurement** Speaker Yuvaraj Elangovan Data transmission performance and characterization of TEPX disks of Phase-2 **CMS Inner Tracker** Speaker Filip Bilandzija **ITk Pixel System Test of the ATLAS Experiment**

Speaker Yahya KHWAIRA

Technical challenges and performance of the new ATLAS LAr Calorimeter Trigger

Speaker Adriana Milic

A multi-Hough-based displaced vertex track trigger for the Belle II Experiment

Speaker

Kai Lukas Unger

Testing of the Prototype CMS Global Level-1 Trigger for Phase-2

Speaker

Hannes Sakulin

Design and implementation of the timing and synchronization system for JUNO-TAO detector

Speaker

Jie Zhang

Experiences and Lessons Learned from the End-of-Substructure card production of the ATLAS ITk Strip Upgrade

Speaker Lukas Bauckhage

Environmental stress screening of the CMS ECAL Barrel VFE and LVR cards

Speaker Nikola Rasevic

CompactPCI-Serial Hardware Toolbox - Advancements towards Cost Effectiveness

Speaker Mr Mathias Gloor

EMCI-EMP: Developments and Experience with the Novel Detector Control Solution

Speaker Dominic Ecker

Development of the ATLAS Liquid Argon Calorimeter Off-detector Readout Electronics for the HL-LHC

Speaker Markus Helbig

A test bench for the qualification of the GRAINITA prototype

Speaker Magali Magne

The DAQ software for ATLAS Inner Pixel Tracker system testing for HL-LHC

Speaker Angira Rastogi

Picosecond timing performances of the FERS time unit

Speaker Dr Ferdinando Giordano

Prototype design of the readout electronics for NvDEx-100 experiment

Speakers Kai Chen, dou zhu

Radiation-Hard Smart-Pixel Detector ASIC ReadOut with Digital AI in 28nm

Speaker

Benjamin Parpillon

Pixel detector hybridization with anisotropic conductive adhesives

Speaker Dr Ahmet Lale

Topmetal-CEE: a pixel sensor for the readout of GEM detectors for high-rate particle tracking

Speaker Hulin Wang

Particam: A fully digital sensor for sub micron resolution

Speaker

Jan Hammerich

Advancements in 28nm CMOS Radiation Hardened IP for Particle Physics Experiments

Speakers

Oliver Bowett, Stephen Bell, Thomas Charles Gardiner

A ring-oscillator-based 5.2 ps bin-size timing circuit for time measurement applications in high-energy physics experiments

Speaker Xiaoting Li

EICROC: an ASIC to read-out AC-LGAD sensors for the Electron-Ion Collider (EIC)

Speaker Mr Adrien Verplancke

HPSoC: A very high Channel Density Waveform Digitizer with sub-10ps resolution - front end design and measurements

Speaker Dr Isar Mostafanezhad

A Time-over-Threshold asynchronous front-end in 28 nm CMOS for the readout of pixel detectors in extreme radiation environments

Speaker Luigi GAIONI

Development of Low Temperature Electronics for LAr-TPC

Speaker Ayumi Morita

A Monolithic Active Pixel Sensor with a Novel Readout Architecture for Vertex Detector in particle physics Experiments

Speaker Wenjie Dai

Development of the Time-to-Digital Converter in 130 nm CMOS technology

Speakers Marek Idzik, Miroslaw Firlej

Evaluation of efficiency, radiation hardness, and timing performance of the Analogue Pixel Test Structure for ALICE ITS3

Speaker

Jian Liu

Irradiation test for BETSEE at CSNS for ATLAs ITk strip upgrade

Speaker

Yan Zhou

Evolution of the data aggregation concepts for STS readout in CBM Experiment

Speakers Dr Wojciech Zabolotny, Dr Wojciech Zabolotny

High-Speed Data Transmission IP's in 65nm CMOS Image Sensor Process at the Electron Ion Collider

Speaker William Ian Helsby

The ATLASPix3.1 CMOS Pixel Sensor Performance

Speakers

Fuat Ustuner, Riccardo Zanzottera

18:00