

Session Program

30 September 2024 to 4 October 2024



TWEPP 2024 Topical Workshop on Electronics for Particle Physics

Thursday posters session

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

Thursday 3 October

16:40

Thursday posters session

Poster Session | **Location:** Grosvenor Suite Theatre

Production Testing of the COLUTA ADC ASIC for the ATLAS HL-LHC Liquid Argon Calorimeter Readout

Speaker

Devanshu Kiran Panchal

Development of ASIC for CoRDIA, a future camera for pioneering x-ray sources

Speaker

Dr Alexander Klujev

Verification Methodology for OBELIX, the monolithic active pixel sensor for the proposed upgrade of the Belle II vertex detector at SuperKEKB

Speakers

Luca FEDERICI, Dr Luca Federici

Research on Monitoring Circuit for Beam Spot Position Based on Diamond Detectors

Speaker

Kai Wang

Feature Extraction on the TRD readout FPGA with HLS in the mCBM Experiment

Speaker

David Schledt

Development of the firmware logic validation system using the FPGA accelerator

Speaker

Ryugo Mizuhiki

Development of a Test System for Data Links of the ATLAS Inner Tracker (ITk) Upgrade Silicon Pixel Detector

Speakers

Austin Mullins, Fuat Ustuner

The high-speed opto-electrical conversion system for the readout of the ATLAS ITk Pixel upgrade

Speaker

Lucas Mollier

Failure analysis and lessons learned on crate and power supply equipment

Speaker

Sylvain Mico

Total Ionizing Dose (TID) damage assessment on LVDS receivers for the ATLAS muon barrel spectrometer readout system

Speaker

Dr Pierluigi Casolaro

Timing and charge measurement of glass RPC detector with CO₂ based gas mixtures**Speaker**

Dr Aman Phogat

Design of hardware interfaces for the LHC Phase-2 CMS ECAL Barrel Safety System**Speaker**

Lazar Cokic

Upgrade of the CMS Drift Tube electronics for the High Luminosity LHC**Speakers**

Ignacio Redondo Fernandez, Muhammad Bilal Kiani

Machine Learning for Real-Time Processing of ATLAS Liquid Argon Calorimeter Signals with FPGAs**Speaker**

Johann Christoph Voigt

Latency-deterministic data and clock forwarding for scalable timing distribution**Speaker**

Vladimir Sidorenko

Ensuring Clock Phase Repeatability by Preventing Loss of the 40.078 MHz Clock in Time-Critical Detectors: A Non-disruptive Clock Switching Approach**Speaker**

Nikitas Loukas

Pileup Mitigation in Hadron Forward Calorimeter at the Level-1 Trigger of the CMS experiment for the HL-LHC**Speaker**

Abhijeet Ghodgaonkar

Low-latency hardware trigger for muons in the barrel region of the ATLAS experiment at the high-luminosity LHC**Speakers**

Alessandra Camplani, Federico Morodei

Status and Challenges of the ATLAS ITk Strip Tracker Powerboard Production for the End-Cap**Speaker**

Roland Koppenhöfer

Module Quality Assurance for the CMS Outer Tracker Phase-2 Upgrade**Speaker**

Ali Khalilzadeh

Development of the ATLAS Liquid Argon Calorimeter On-detector Readout Electronics for the HL-LHC**Speaker**

Devanshu Kiran Panchal

An FPGA-based Data Aggregator for the New ATLAS DCS System

Speaker

Ahmed Qamesh

Tests of the Prototype Peripheral Electronics Board for the High Granularity Timing Detector**Speaker**

Jie Zhang

Performance of the DAQ system of the PANDA Micro-Vertex Detector**Speaker**

Olena Manzhura

The Prototype of the Peripheral Electronics Board - a Component of the HGTD In-detector Electronics for the ATLAS Phase-II Upgrade**Speaker**

Jie Zhang

FELIX Phase-II, the ATLAS readout system for LHC Run 4**Speaker**

Melvin Leguijt

Flexible PCBs for modern chip integration at FBK: ALPIDE chip as case study**Speaker**

Alessandro Lega

Mini-CACTUS-V2, a Timing Depleted Monolithic Active Pixel Sensor for High Energy Physics**Speaker**

Yujing Gan

Design of the OBELIX monolithic CMOS pixel sensor for an upgrade of the Belle II vertex detector**Speaker**

Roua BOUDAGGA

A novel feedback circuit for analogue time walk compensation**Speaker**

Jan Hammerich

Small prototype of an asynchronous versatile readout**Speakers**

Frederic Morel, Jean Soudier

FLAXE, a SoC readout ASIC for electromagnetic calorimeter at LUXE experiment**Speaker**

Jakub Moron

Reusable Verification Components for High-Energy Physics readout ASICs**Speaker**

Matteo Lupi

An ASIC for ToF-PET application with MCP-PMTs

Speaker
Xiongbo Yan

High voltage monolithic pixel sensor in 55 nm technology

Speaker
Hui Zhang

A 14bit 100 MS/s Two-Step Split SAR ADC using low-power high-linearity RA without any internal phase compensation and in-stage redundancy technology

Speaker
Ping Yang

CPROC, a RISC-V processor demonstrator for monitoring and data processing in HEP

Speaker
Mr Abdelmowafak El Berni

The GAROP-2, a Radiation-Hard ASIC for Particle Beam Monitor Readout of the COMET Experiment

Speaker
Xiangyu Xu

Charge Collection Properties of a CMOS Sensor Produced in a 55 nm Process

Speaker
Kai Chen

Single event effect in HCC ASICs for ITk strip upgrade

Speaker
Mr Shaogang Peng

Development of a 10-bit ultra-low power SAR ADC with internal threshold in 130 nm CMOS technology

Speaker
Mr Patryk Prus

PLL and TDC in TSMC 65nm for FastIC+ Chip

Speaker
Joan Mauricio

Development of high-speed serializer transmitters in 180 nm technology for CEPC vertex detector readout electronics

Speaker
Xiaoting Li

Design of a 12-Bit SAR-ADC for Charge Integrating Pixel Detectors

Speaker
Patrick Sieberer

High-Voltage studies for the new GE1/1 GEM Station in the CMS Experiment

Speaker
Carlo Di Fraia

18:00