

## **Session Program**

**30 September 2024 to 4 October 2024**



# **TWEPP 2024 Topical Workshop on Electronics for Particle Physics**

***ASIC***

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

# Tuesday 1 October

09:00

## ASIC

**Session** | **Location:** Grosvenor Suite Theatre | **Conveners:** David Gascon, Marcus Julian French

**09:00–09:20** **ECON-D and ECON-T: Design and Production Testing**

**Speaker**  
James Hoff

**09:20–09:40**

**Functional Verification for Endcap Concentrator ASICs in the High-Granularity Calorimeter Upgrade of CMS**

**Speaker**  
Matteo Lupi

**09:40–10:00**

**An Integer-N Frequency Synthesizer for Flexible On-Chip Clock Generation**

**Speaker**  
Soumyajit Mandal

10:00

11:20

## ASIC

**Session** | **Location:** Grosvenor Suite Theatre | **Conveners:** David Gascon, Marcus Julian French

**11:20–11:40** **SOCRATES: a Radiation-Tolerant SoC Generator Framework**

**Speaker**  
Marco Andorno

**11:40–12:00**

**Event-Driven Readout Development: Testing of the EDWARD65P1 Chip with Integrated Event Generators**

**Speaker**  
Dominik Gorni

**12:00–12:20**

**Design update and characterization of sub-10ps TDC ASIC in 28nm for future 4D trackers.**

**Speakers**  
Julian Maxime Mendez, Julian Mendez, Julian Mendez

12:20

14:00

## ASIC

**Session** | **Location:** Grosvenor Suite Theatre | **Conveners:** David Gascon, Ping Gui

**14:00–14:20**

**FAST3 asic: front-end electronic with ps resolution, designed for thin LGADs read-out**

**Speaker**  
Marco Ferrero

14:20-14:40

**The testing and performance of the ETROC2 for CMS MTD Endcap Timing Layer (ETL) upgrade**

**Speakers**

Tiehui Ted Liu, Tiehui Ted Liu

14:40-15:00

**First results on the Ignite-0 test ASIC in CMOS 28-nm technology**

**Speaker**

Gian Matteo Cossu

15:00

16:20

**ASIC**

**Session** | **Location:** Grosvenor Suite Theatre | **Conveners:** Ping Gui, David Gascon

16:20-16:40

**Design of 28nm readout ASIC prototype for 3D-integrated LGAD sensors**

**Speaker**

Bojan Markovic

16:40

## Wednesday 2 October

09:00

### ASIC

**Session** | **Location:** Grosvenor Suite Theatre | **Conveners:** Angelo Rivetti, Christine Guo Hu

**09:00–09:20** **Development of the MOSAIX chip for the ALICE ITS3 upgrade**

**Speaker**

Pedro Vicente Leitao

**09:20–09:40**

**Power distribution over the wafer-scale monolithic pixel detector - MOSAIX for ALICE ITS3**

**Speaker**

Szymon Bugiel

**09:40–10:00**

**Yield Characterisation and Failure Analysis of the Monolithic Stitched Sensor MOSS for ALICE ITS3**

**Speaker**

Gregor Hieronymus Eberwein

10:00

11:20

### ASIC

**Session** | **Location:** Grosvenor Suite Theatre | **Conveners:** Marcus Julian French, Ping Gui

**11:20–11:40**

**Investigation of non-idealities of pulsing circuitry in the MOSS monolithic sensor**

**Speaker**

Simone Emiliani

**11:40–12:00**

**Design and characterization of the monolithic ASIC for the pre-shower upgrade of the FASER experiment**

**Speaker**

Carlo Alberto Fenoglio

**12:00–12:20**

**RD50-MPW4: A thin backside-biased High Voltage CMOS pixel chip for high radiation tolerance**

**Speaker**

Eva Vilella Figueras

12:20

## Thursday 3 October

09:00

### ASIC

**Session** | **Location:** Grosvenor Suite Theatre | **Conveners:** Christine Guo Hu, Angelo Rivetti

09:00–09:20

**HKROC: an integrated readout chip designed to facilitate the readout of a large number of photomultiplier tubes for the next generation of neutrino experiments**

**Speaker**

Selma Conforti Di Lorenzo

09:20–09:40

**Implementation and performance of ALTIROC3 readout ASIC for ATLAS HGTD timing detector**

**Speaker**

Alexandre Pierre Soulier

09:40–10:00

**Cleopatra : A 12-Channel Recycling Integrator ASIC for the Readout of Hydrogenated Amorphous Silicon Detectors in Radiotherapy Dosimetry**

**Speaker**

Giovanni Mazza

10:00

11:20

### ASIC

**Session** | **Location:** Grosvenor Suite Theatre | **Conveners:** Christine Guo Hu, Angelo Rivetti

11:20–11:40

**UKRI-MPW1: an HV-CMOS pixel sensor for high radiation tolerance**

**Speaker**

Chenfan Zhang

11:40–12:00

**The Energy Measurement ASIC for the Upgrade II in the LHCb Calorimeter Detector**

**Speaker**

Mr Alberto López

12:00–12:20

**A Wide-Temperature-Range SAR ADC in Open-Source CMOS Technology**

**Speaker**

Soumyajit Mandal

12:20