

## **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

15:00

16:20

16:40

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

## 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

## 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 Leitaó

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