Session Program

7–10 Oct 2025

CPAD 2025 at Penn

RDC 4 Readout & ASICs

Inn at Penn, University of Pennsylvania
3600 Sansom Street, Philadelphia, Pa 19104

Tuesday 7 October

16:30

RDC 4 Readout & ASICs

Session | **Location:** Inn at Penn, University of Pennsylvania, 3600 Sansom Street, Philadelphia, Pa 19104

16:30–16:50 **Power conversion for HEP using piezoelectric elements**

Speaker
Adrian Nikolica

16:50–17:10

CMS HGCAL ECON-D ASIC : Impact of CMOS fabrication process tuning on performance and radiation tolerance

Speaker
Jim Hirschauer

17:10–17:30

Functional and Single Event Effects (SEE) Triplication Verification of the ATLAS ITk Strip Tracker HCCStar and AMACStar Front-end ASICs

Speaker
Paul Keener

17:30–17:50 **Amplitude Walk in Fast Timing: The Role of Dual Thresholds**

Speaker
Dr Sebastian White

17:50–18:10

El-Pho: Electro-Photonic Integrated Platform for Near-Sensor Processing in Extreme Environments within the MEERCAT MSRC

Speaker
Grzegorz Deptuch

18:30

Thursday 9 October

11:00

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11:00–11:20 **The Analog Photon Processor ASIC**

Speaker
Adrian Nikolica

11:20–11:40 **Possible new iterations of the VMM chip for MPGD readout**

Speaker
Dr Gianluigi De Geronimo

11:40–12:00 **Modern Electronics Education with AI/ML and FPGA**

Speaker
Keisuke Yoshihara

12:00–12:20

A Smart Readout ASIC with Digital Signal Processing and Machine Learning Integrated into the Front-End

Speaker
Prashansa Mukim

12:20–12:40

Smartpixels: Developing ASICs for high-energy particle detectors with on-chip neural networks in 28 nm CMOS

Speaker
Danush Shekar

12:40

16:30

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16:30–16:45 **LArPix Pixelated Charge Readout System**

Speaker
Brooke Russell

16:45–17:00

A readout ASIC on CMOS 28 nm for SiPM/PMT readout at cryogenic temperatures

Speaker
Llorenc Fanals-i-Batllori

17:00–17:15 **Q-Pix: Pixelated Charge Readout Design, Prototyping, & Simulation**

Speaker
Kalindi Gosine

17:15–17:30 **Cryogenic Testing of CRYO ASIC for Photon Readout**

Speaker
Liang Yang

17:30–17:45

Cryogenic Modeling of Open-Source Skywater 130nm Process Design Kit at 77K for High Energy Physics

Speaker

Faith Beall

17:45–18:00

Development of a 28 nm Cryogenic PDK for Next-Generation HEP Detectors

Speaker

Brian Lenardo

18:00