

Session Program

7-10 Oct 2025



CPAD 2025 at Penn

Poster

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

Wednesday 8 October

18:30

Poster: (poster reception 6:30-8:00pm with snacks. Note posters will be on display all day Wednesday and Thursday)

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

A Novel Optical Communication Scheme for a New Clock-less Q-Pix Detector Design (for Q-Pix Collaboration)

Speaker

Grace Gansle

A GHz-Bandwidth Readout and Trigger System for the Eos Hybrid Neutrino Detector

Speaker

Benjamin Harris

Network intelligence for fault tolerance and data load balancing

Speaker

Maurice Garcia-Sciveres

Results from Testing of the Novel Optical Communication Scheme with the Clockless Q-Pix Charge Readout System in Gaseous Argon

Speaker

John Hunt

Characterization and modelling of three building block circuitry of the Q-Pix charge read out scheme implemented using the open-source Skywater 130nm MOSFETS for application in liquid Argon detectors.

Speaker

ASHISH RIMAL

Measurement of the Qpix analog front end for track reconstruction in a Pixelated Liquid Argon TPC

Speaker

Mr Alex Kramer

FPGA-acceleration of image feature extraction for the ATLAS experiment at CERN at the Large Hadron Collider

Speaker

Tong Xu

Advancements in Power-over-Fiber technology for the DUNE Far Detector 3

Speaker

Prof. David Martinez

On the way to design fast beam loss monitor for Machine-Detector Protection at EIC: Test results at RHIC

Speakers

Aleksey Bolotnikov, Andrii Natochii, Erik Muller, Evgeny Shulga, Thomas Tsang

LightPix-v3: Improvements in scalable readout for silicon photomultipliers in cryogenic environments

Speaker

Brooke Russell

High-Rate Picosecond Photodetectors (HRPPDs) for Particle Identification Subsystems

Speaker

Yifan Jin

hls4ml - a tool for machine learning hardware-software co-design for HEP detector applications

Speakers

Jan-Frederik Schulte, Miaoyuan Liu

Cold readout electronics for liquid argon TPCs in the DUNE far detector

Speaker

Xuyang Ning

ALFE2, a Large-Dynamic-Range, Low-Noise Front-End ASIC Designed for the ATLAS Liquid Argon Calorimeter High-Luminosity Large-Hadron Collider (HL-LHC) upgrade

Speaker

Tiankuan Liu

CHARMS250: A Cryogenic Front-End ASIC for Low-Noise Readout of Charge or Light Signals

Speaker

Prashansa Mukim

Integrated Electro-Photonic Graph Neural Networks (GNNs) for Charged Particle Tracking

Speaker

Prashansa Mukim

Event-Driven Readout: Key to Next-Generation Granular Detectors and AI-Integrated Processing in HEP and NP

Speaker

Grzegorz Deptuch

Migration of feature extraction from firmware to software for the Belle II TOP detector

Speaker

Harsh Purwar

Low-Latency Graph Neural Network Implementation for Charged Track Reconstruction

Speaker

Amilqar Karam

Characterization of the MetaRock prototype TDC for future HEP experiments

Speakers

Josef Daniel Sorenson, Timon Heim

Advancing Photosensor Fabrication for the SoLID Experiment**Speaker**

Junqi Xie

Beam Test Results of SiPM-on-Tile Calorimeter Prototypes Toward the ePIC Forward Calorimeter**Speaker**

Weibin Zhang

ArCS: A Magnetized LArTPC in a Test Beam**Speaker**

Giulia Cicogna

Advancements and future expansions of the Caribou DAQ system**Speaker**

Eric Buschmann

FELIX: the transition of the ATLAS readout system from LHC Run 3 to Run 4**Speaker**

Haotian Cao

High-Voltage Phonon-Focusing Detector with Spectral Filtering for Sub-eV Nuclear Recoil Discrimination**Speaker**

Mr Gerardo Gonzalez

Delayed backgrounds and charged liquid surface effects in dual-phase detectors.**Speaker**

sergey pereverzev

LAr Purification and Purity Monitoring System at Wellesley College**Speaker**

Wenzhao Wei

Development and performance of the dRICH SiPM-based photodetector for the ePIC experiment at the EIC**Speaker**

Roberto Preghenella

Long-Term Performance of VUV-Sensitive Silicon Photomultipliers in Cryogenic Environments for nEXO**Speaker**

Edryd van Bruggen

Machine Learning to Accelerate Qubit Designs for Quantum Sensing**Speaker**

Olivia Seidel

Characterization of Microwave SQUID Multiplexers for the RICOCHET Experiment**Speaker**

Jiatong Yang

Exploring Axion Dark Matter with Optical Quantum Sensors

20:20

Speaker
Young Jin Kim