

Session Program

12-14 Jul 2021

**2021 Meeting of the Division of Particles and
Fields of the American Physical Society
(DPF21)**

Particle Detectors

Zoom

Monday 12 July

14:30

Particle Detectors: DET 1C

Session | **Location:** Zoom, Track C | **Conveners:** Ted Kolberg, Karol Krizka, Ulrich Heintz

14:30-14:45

The CMS Electromagnetic Calorimeter calibration and performance during LHC Run 2

Speaker

Jelena Mijuskovic

14:45-15:00

ECAL trigger primitives performance in Run 2 and improvements for Run 3

Speaker

Davide Valsecchi

15:00-15:15

Break

15:15-15:30

RADiCAL - Innovative Ultracompact Radiation-hard, Fast-timing EM Calorimetry

Speaker

Randy Ruchti

15:30-15:45

Using Photosensitive Dopants to Enhance Large LArTPC Performance

Speaker

Joseph Zennamo

15:45-16:00

Progress on construction and qualification tests of the Mu2e electromagnetic calorimeter mechanical structures

Speaker

Daniele Pasciuto

16:00

16:15

Particle Detectors: DET 2C

Session | **Location:** Zoom, Track C | **Conveners:** Karol Krizka, Dmitri Denisov, Pampa Ghose

16:15-16:30

Design and studies for the Mu2e-II tracker

Speaker

Giovanni Francesco Tassielli

16:30-16:45

Module Loading for the ATLAS Phase-II Inner Tracker Pixel Detector

Speaker

Hannah Elizabeth Herde

16:45-17:00

Thermal and electrical performance of the ATLAS strips module testing setup

Speaker

Punit Sharma

17:00-17:15

Construction of LHCb's Upstream Tracker

Speaker

Michael Kent Wilkinson

17:15-17:30

Development of a High-Speed Hit Decoder for the RD53B Chip

Speaker

Donavan Erickson

17:30-17:45

Algorithm design and expected performance for ATLAS Run-3 Level-1 calorimeter trigger system

Speaker

Ava Anne Myers

17:45

Tuesday 13 July

14:30

Particle Detectors: DET 3C

Session | Location: Zoom, Track C | Conveners: Hong Ma, Massimo Capasso

14:30-14:45 **The HGICAL upgrade of the CMS detector for HL-LHC**

Speaker

Saptaparna Bhattacharya

14:45-15:00 **Silicon sensors for the CMS HGICAL upgrade**

Speaker

Timo Hannu Tapani Peltola

15:00-15:15 **The SiPM-on-tile system of the CMS HGICAL upgrade**

Speaker

Suho Kim

15:15-15:30

Characterization of Multi-Pixel Photon Counters for the T2K near detector upgrade

Speaker

Shih-Kai Lin

15:30-15:45

Particle Detection utilizing Modified Bandgap Reference Circuit Design

Speaker

Elaine Rhoades

15:45-16:00

Missing transverse momentum algorithm improvements for the ATLAS High Level Trigger for Run 3 for pp collisions

Speaker

Ben Carlson

16:00

16:15

Particle Detectors: DET 4C

Session | Location: Zoom, Track C | Conveners: E. Craig Dukes, Massimo Capasso

16:15-16:30

Fabrication of a high efficiency cosmic ray veto detector for the Mu2e experiment.

Speaker

Robert Group

16:30-16:45

Performance of Enhanced Wavelength-shifting Fibers for the Mu2e Cosmic Ray Veto Detector

Speaker

Sydney Roberts

16:45-17:00

A Novel Scintillator Detector for the Mu2e-II Experiment and a Muon Tomography Probe of the Interior of the Great Pyramid

Speaker
Edmond Dukes

17:00-17:15

Mu2e Straw Tube Tracker Pre-Production Panel Performance Studies

Speaker
Yongyi Wu

17:15-17:30

Radiation Modeling and Shielding Design for the Mu2e Branching Ratio Normalization Detectors

Speaker
Haichuan Cao

17:30-17:45

Break

17:45

16:15

Particle Detectors: DET 4L

Session | **Location:** Zoom, Track L | **Conveners:** Dmitri Denisov, Ke Li

16:15-16:30

Installation and commissioning status of the new GEM muon detectors in the CMS experiment

Speaker
Brendan Regnery

16:30-16:45

The CMS GE1/1 commissioning and alignment status

Speaker
Devin Michael Aebi

16:45-17:00

The Integration and Commissioning of the Small-Strip Thin Gap Chambers for ATLAS New Small Wheel Phase-I Upgrade

Speaker
Prachi Atmasiddha

17:00-17:15

Quantum dot based scintillators for charged particle detection

Speaker
Michael Hedges

17:15-17:30

Status of the ATLAS ITk Strip Detector

Speaker
Karol Krizka

17:30-17:45

Break

17:45

Wednesday 14 July

14:30

Particle Detectors: DET 5C

Session | Location: Zoom, Track C | Conveners: Jinlong Zhang, Ke Li

14:30-14:45 **Precision timing with the CMS barrel MIP timing detector**

Speaker
Amrutha Krishna

14:45-15:00 **ETROC project for the CMS MTD Endcap Timing Layer (ETL)**

Speaker
Geonhee Oh

15:00-15:15

Picosecond Timing Layers for Future Calorimeters: Updates from the Askaryan Calorimeter Experiment (ACE)

Speaker
Remy Prechelt

15:15-15:30 **FASER Commissioning**

Speaker
Savannah Rose Shively

15:30-15:45 **A real time sub-picosecond phase correction system.**

Speaker
Rohith Saradhy

15:45-16:00

Slow control and data acquisition software interfaces in the Mu2e experiment

Speaker
Antonio Gioiosa

16:00

16:15

Particle Detectors: DET 6C

Session | Location: Zoom, Track C | Conveners: Jinlong Zhang, Zijun Xu

16:15-16:30

New beam test results of 3D detectors constructed with poly-crystalline CVD diamond

Speaker
Alice Laura Porter

16:30-16:45 **Latest Results on the Radiation Tolerance of Diamond Detectors**

Speaker
Lukas Baeni

16:45-17:00

Development of a System for Beam Abort and Luminosity Determination at the HL-LHC based on polycrystalline CVD diamond

Speaker

Alice Laura Porter

17:00-17:15

Reconstructing silicon pixel hits using neural networks

Speaker

Sanjana Sekhar

17:15-17:30

Improvements to ATLAS Inner Detector Track reconstruction for LHC Run-3

Speaker

Maximilian Emanuel Goblirsch-Kolb

17:30-17:45

Vertex Reconstruction with ATLAS Inner Detector and Inner Tracker

Speaker

Ke Li

17:45

16:15

Particle Detectors: DET 6J

Session | **Location:** Zoom, Track J | **Conveners:** Dmitri Denisov, Hannah Elizabeth Herde

16:15-16:30

Electrical and functional performance of the first full loaded ITk Strip stave at Brookhaven National Laboratory

Speaker

Francesca Capocasa

16:30-16:45

Readout Tests of the ATLAS Detector's ITk Pixel System Toward the HL-LHC Upgrade

Speaker

Egor Antipov

16:45-17:00

The AMAC ASIC for the ATLAS ITk silicon strip detector: design and verification

Speaker

Sicong Lu

17:00-17:15

The AMAC ASIC for the ATLAS ITk silicon strip detector: Results of prototype wafer testing

Speaker

Luis Felipe Gutierrez Zagazeta

17:15-17:30

The HCCStar ASIC for the ATLAS ITk silicon strip detector: irradiation testing

Speaker

James Heinlein

17:30-17:45

The HCCStar ASIC for the ATLAS ITk silicon strip detector: design and verification

Speaker

Benjamin John Rosser

17:45-18:00

Upgrade of the ATLAS Monitored Drift Tube Frontend Electronics for the HL-LHC

Speakers

Zhichen Wang, Zhichen Wang

18:00