

**Session Program**

**13-17 May 2024**



**DPF - PHENO 2024**

***Quark and Lepton Flavor Physics***

University of Pittsburgh / Carnegie Mellon University

# Monday 13 May

14:00

## Quark and Lepton Flavor Physics: BSM Flavor Model

**Session** | **Location:** University of Pittsburgh, David Lawrence Hall 209 | **Convener:** Yousen Zhang

14:00–14:15

### Searching for Extra Higgs Bosons in the General 2HDM

**Speaker**

George Wei-Shu Hou

14:15–14:30

### Baryon Number Violation Involving Tauons

**Speaker**

Julian Heeck

14:30–14:45

### Phenomenologically Viable Froggatt-Nielsen Solutions to the Lepton Flavor Puzzle

**Speaker**

Micah Mellors

14:45–15:00

### Lepton Flavor Violation by Two Units

**Speaker**

Mikheil Sokhashvili

15:00–15:15

### Generalizing flavored (flavon-based) scalar potentials and their minima

**Speaker**

Ming-Shau Liu

15:15–15:30

### UV imprints on muon-to-electron conversion

**Speaker**

Tony Menzo

15:30

## Tuesday 14 May

16:00

### Quark and Lepton Flavor Physics: Techniques and Algorithms

**Session** | **Location:** University of Pittsburgh, David Lawrence Hall 104 | **Convener:** Gianantonio Pezzullo

16:00-16:15

#### Measurement of beam polarization at an $e^+e^-$ B-Factory with a new tau polarimetry technique

**Speaker**

Swagato Banerjee

16:15-16:30

#### Precession frequency analysis at Fermilab Muon g-2 Experiment

**Speaker**

Murong Cheng

16:30-16:45

#### Development of a Track-Trigger for Measuring the Antiproton Annihilation Cross-Section in the Mu2e Experiment at Fermilab

**Speaker**

Ethan Martinez

16:45-17:00

#### Performance of heavy-flavour jet identification algorithms in boosted topologies at the CMS experiment

**Speaker**

Matej Roguljic

17:00-17:15

#### Beyond Kinematics for Optimal Hadronic Top Quark Polarimetry I

**Speaker**

Alberto Navarro

17:15-17:30

#### Beyond Kinematics for Optimal Hadronic Top Quark Polarimetry II

**Speaker**

Zhongtian Dong

17:30

## Wednesday 15 May

14:00

### Quark and Lepton Flavor Physics: B decays

**Session** | **Location:** University of Pittsburgh, David Lawrence Hall 104 | **Convener:** Joachim Brod

14:00–14:15 **Dark photon and dark Z mediated B meson decays**

**Speaker**

Ahmed Rashed

14:15–14:30

**An axion-like particle explanation of  $B \rightarrow \pi K$  puzzle and  $B \rightarrow K \nu \bar{\nu}$  excess**

**Speaker**

Shibasis Roy

14:30–14:45

**Dark and Heavy New Physics in  $b \rightarrow s \nu \bar{\nu}$  decays**

**Speaker**

Aditya Gadam

14:45–15:00

**Anomalies in Hadronic B Decays**

**Speaker**

Alexandre Jean

15:00–15:15

**Tests of Lepton Flavor Universality in tree-level B Meson Decays at LHCb**

**Speaker**

Alex Daniel Fernez

15:15–15:30 -

15:30

16:00

### Quark and Lepton Flavor Physics: Anomalies and Top Physics

**Session** | **Location:** University of Pittsburgh, David Lawrence Hall 104 | **Convener:** Xing Wang

16:00–16:15

**Higher-order corrections for ttW production**

**Speaker**

Nikolaos Kidonakis

16:15–16:30

**Entanglement of top quarks**

**Speaker**

Andreas Werner Jung

16:30–16:45

**Is the Charm Heavy?**

**Speaker**

Margarita Gavrilova

16:45–17:00

**Measurement of top quark's charge asymmetry in boosted lepton+jets decays and EFT interpretation using Run2 CMS data**

**Speaker**  
Ricardo Escobar Franco

17:00–17:15 **CP violation in tau decay into Kaons**

**Speaker**  
Guglielmo Papiri

17:15–17:30 **Revisiting  $\theta$ -induced neutron EDM in QCD sum rule**

**Speaker**  
Ting Gao

17:30