# **Session Program**

13-17 May 2024

# **DPF-PHENO 2024**

# DPF - PHENO 2024 Cosmology & Dark Energy

University of Pittsburgh / Carnegie Mellon University

# **Monday 13 May**

14:00

Cosmology & Dark Energy: BAO review, Dark Radiation, Millicharge Session | Location: University of Pittsburgh, Barco Law Building 107 | Convener: Fazlollah Hajkarim 14:00-14:30 Can we use Baryon Acoustic Oscillations distances? Speaker Stefano Anselmi 14:30-14:45 14:45-15:00 Cosmological Probes of Dark Radiation from Neutrino Mixing Speaker Dr Itamar Allali 15:00-15:15 **Dark Radiation Isocurvature from Cosmological Phase Transitions** Speaker Mitchell Weikert 15:15-15:30 **Cosmic Millicharge Background and Reheating Probes** Speaker

15:30

16:00

# Cosmology & Dark Energy: Anomalies and Baryogenesis

Session | Location: University of Pittsburgh, Barco Law Building 107 | Convener: Michael Shamma

Xucheng Gan

16:00-16:15 w = -1.73 solves the Hubble tension, but destroys the universe

Speaker

David Lindsay

16:15-16:30

A Ratio-Preserving Approach to Concordance Cosmology

Speaker

Kylar Greene

16:30-16:45

**Dark Acoustic Oscillation Faces the Cosmological Tensions** 

Speaker

Dr Taewook Youn

16:45-17:00

Baryogenesis and Gravitational Wave Production in Simple Left-Right Model

**Speaker** 

Matthew Knauss

17:00-17:15

Baryon asymmetry from dark matter decay in the vicinity of a phase transition

Speaker

Indrajit Saha



Cosmological implications of gauged  $U(1)_{B-L}$  on  $\Delta N_{\rm on BBN}$ 

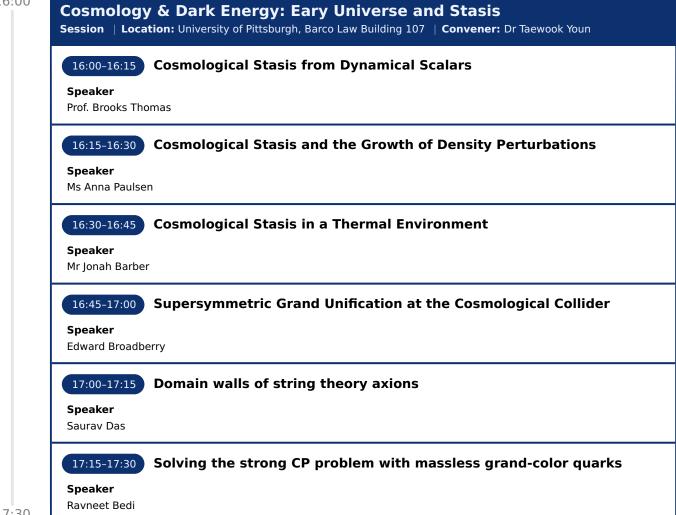
## Speaker

Haidar Esseili

17:30

# **Tuesday 14 May**

16:00



17:30

# **Wednesday 15 May**

14:00

### Cosmology & Dark Energy: CMB and other observations

Session | Location: University of Pittsburgh, Barco Law Building 107 | Convener: Keisuke Inomata

14:00-14:15 **-**

14:15-14:30 Cosmological Parameter Forecasts for a CMB-HD Survey

Speaker

Amanda Macinnis

#### 14:30-14:45

Peculiar Velocity Improvements of Multi-Messenger Standard Siren Measurements

**Speaker** 

Ariel Amsellem

14:45-15:00 Amplifying CMB phase shift with dark matter-radiation interactions

Speaker

Daven Wei Ren Ho

#### 15:00-15:15

Results and progress of CMB lensing measurements using SPT-3G data

Speaker

W.L. Kimmy Wu

15:15-15:30 Producing cosmic birefringence through CP-violating axions

Speaker

Anubhav Mathur

15:30

16:00

#### Cosmology & Dark Energy: Early Universe

Session | Location: University of Pittsburgh, Barco Law Building 107 | Convener: Dr Subhajit Ghosh

16:00-16:15 Early Dark Energy During Big Bang Nucleosynthesis

Speaker

Afif Omar

#### 16:15-16:30

Correlated scalar perturbations and gravitational waves from axion inflation

Speaker

Sofia Corbà

#### 16:30-16:45

Emergent particles of a de Sitter universe: Thermal interpretation of the stochastic formalism and beyond

Speaker

Dr TaeHun Kim

16:45-17:00 Transient Cosmological Quasiparticles

Speaker

He Li

17:00-17:15

Runaway Mergers from Clustering in a Primordial Black Hole Dominated Universe

Speaker

Ian Holst

17:15-17:30 Curvature Perturbations Protected Against One Loop

Speaker

Keisuke Inomata

17:30