

Session Program

11-13 May 2026



Phenomenology 2026 Symposium

Cosmology

University of Pittsburgh

Monday 11 May

14:15

Cosmology: Neutrino, BBN, DM

Session | **Location:** David Lawrence Hall 107, University of Pittsburgh

14:15–14:30

New prediction for the primordial deuterium abundance with Gaussian processes

Speaker

Timothy Launders

14:30–14:45

To ν or Not to ν : That is the Interaction

Speaker

Dr Subhajit Ghosh

14:45–15:00

Superradiant interactions of cosmic relics and how to look for them

Speaker

Marios Galanis

15:00–15:15

A win-win Coupling, Alleviating the Hubble Tension in the Neutrino Early Dark Energy Interacting Models

Speaker

Dylan McCauley

15:15–15:30

The cosmological evolution of coupled neutrino-ultralight dark matter

Speaker

Antoni Bertolez-Martinez

15:30–15:45

Efficiency of primordial black hole evaporation into dark matter

Speaker

Brian Zhang

15:45–16:00

Primordial Neutron Stars

Speaker

Duncan Rocha

16:00

16:30

Cosmology: Bosonic fields

Session | **Location:** University of Pittsburgh

16:30–16:45

EFT perspective on fifth-force searches using isotope shift spectroscopy

Speaker

Gil Paz

16:45–17:00

Composite Ultralight Scalars, Fifth Forces, and Atomic Clocks

Speaker

Shourya Mukherjee

17:00-17:15 **Cosmological constraints on Majoron Dark Matter**

Speaker

Swapnil Dutta

17:15-17:30

Constraining Dark First-Order Phase Transitions with CMB and Structure Formation Observations

Speaker

Daven Wei Ren Ho

17:30-17:45 **Computing bubble wall velocity from entropy**

Speaker

Isaac Wang

17:45-18:00 **Effects of New Forces on Scalar Dark Matter Solitons**

Speaker

Alize Sucsuzer

18:00-18:15 **Understanding Misaligned Condensates with Yukawa Couplings**

Speaker

Nathan Herring

18:15-18:30

Emergent modified gravity: Dynamical dark energy model without additional degrees of freedom

Speaker

Manuel Diaz

18:30

Tuesday 12 May

14:00

Cosmology: CMB, GW

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

14:00–14:15 **Echoes of global cosmic strings**

Speaker

Antonios Kyriazis

14:15–14:30 **Spectator Composes Gravitational Canon**

Speaker

Yunjia Bao

14:30–14:45 **Kinetic Isocurvature Perturbations**

Speaker

Dhong Yeon Cheong

14:45–15:00 **Primordial Features and Their Impact on Structure Formation**

Speaker

Dr Itamar Allali

15:00–15:15 **Current and Future Constraints on the Primordial Power Spectrum**

Speaker

Zachary Cheslog

15:15–15:30 **A Step in Flux to Suppress Axion Isocurvature**

Speaker

Zekai Wang

15:30–15:45 **Cosmological Signals from Finite-Lifetime Domain Wall Networks**

Speaker

Fengwei Yang

15:45–16:00 **First Search for Kaluza-Klein Gravitons and Radion Using Planck Data**

Speaker

Alexander Cassem

16:00

16:30

Cosmology: Axions

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

16:30–16:45 **Axions on a Hyperbolic Ride**

Speaker

Dr Sai Chaitanya Tadepalli

16:45–17:00

Probing Dark Matter Decays to Axions via Axion-Photon Conversion in Filaments

Speaker

Matthew Baldwin

17:00-17:15

QCD Axion Domain Walls from Super-Cooling First Order Phase Transition**Speaker**

Kunfeng Lyu

17:15-17:30

Dynamical Heating from Dark Compact Objects and Axion Mini-halos**Speaker**

Badal Bhalla

17:30-17:45

Putting the Brakes on Axion Strings: Friction and Its Impact on the QCD Axion Abundance**Speaker**

Rajrupa Mondal

17:45-18:00

Constraints on Axion Dark Matter Isocurvature from CMB**Speaker**

Praniti Singh

18:00-18:15

Cosmological Aspects of Axion-Monopole Interactions**Speaker**

Hengameh Bagherian

18:15-18:30

Tackling the Axion Isocurvature Problem with Bulk Modulus Kination**Speaker**

Chandrika Chandrashekar

18:30