

Session Program

14-18 Oct 2024

**PPC 2024: XVII International Conference on
Interconnections between Particle Physics
and Cosmology**

Parallel - Cosmology

Tuesday 15 October

14:00

Parallel - Cosmology: Session 1

Session | **Location:** IIT Hyderabad , Seminar Room 6-7, Convention Center | **Convener:** Pavan K Aluri

14:00-14:15

Unveiling the dynamics of reheating in modified chaotic and mutated hilltop inflation

Speaker

Sudhava Yadav

14:15-14:30

Foreground removal and angular power spectrum estimation of 21 cm signal using harmonic space ILC method

Speaker

ALBIN JOSEPH

14:30-14:45

LADDER: Revisiting the Cosmic Distance Ladder with Deep Learning Approaches and Exploring its Applications

Speaker

Purba Mukherjee

14:45-15:00

Reappraisal of Hemispherical Power Asymmetry in CMB temperature data after Planck PR4

Speaker

SANJEEV SANYAL

15:00-15:15

The correlations between galaxy properties in different environments of the cosmic web

Speaker

Ms Anindita Nandi

15:15-15:30

Dynamical system analysis of DBI scalar field cosmology in general symmetric teleparallel gravity.

Speaker

SAYANTAN GHOSH

15:30-15:45

Impacts of Z3 symmetric dark matter models on global 21-cm signal

Speaker

Debarun Paul

15:45-16:00

Boosting HI-galaxy cross-clustering signal through higher-order cross-correlations

Speaker

Eishica Chand

16:00

16:30

Parallel - Cosmology: Session 2**Session** | **Location:** IIT Hyderabad, Seminar Room 6-7, Convention Center**16:30-16:45** **Magnetic field amplification and decay in cosmic string wakes****Speaker**

Deepanshu Bisht

16:45-17:00**Synchrotron radiation from accelerated electrons in the magnetized cosmic string wakes.****Speaker**

Soumen Nayak

17:00-17:15**Large Blue Spectral Index from a Conformal Limit of a Rotating Complex Scalar****Speaker**

Dr Sai Chaitanya Tadepalli

17:15-17:30**CMB Constraints on Natural Inflation with Gauge Field Production****Speaker**

KHURSID ALAM

17:30-17:45**Short-Duration GRBs from Magnetic Reconnection in Cosmic String Wakes****Speaker**

Mr DILIP KUMAR

17:45-18:00**Cosmology with Vision Transformer****Speaker**

Dr Atrideb Chatterjee

18:00-18:15**Impact of Finite Temperatures and Ultrastrong Magnetic Fields on Anisotropic Magnetized White Dwarfs in γ -metric formalism****Speaker**

Ms Rajasmita Sahoo

18:15-18:30**PBH formation from an aborted phase transition****Speaker**

Taehyun Jung

18:30-18:45**Self-interactions of ultralight spinless dark matter to the rescue?****Speaker**

Dr Gaurav Goswami

18:45

Wednesday 16 October

17:30

Parallel - Cosmology: Session 3

Session | **Location:** IIT Hyderabad, Seminar Room 3-4, Convention Center | **Convener:** Pradyumn K Sahoo

17:30–17:45 **Cosmology with Photometric SNIa in the LSST Era**

Speaker

Ayan Mitra

17:45–18:00 **Effects of Quantum Gravity in the Kerr Black Hole Paradigm**

Speaker

Mr Suryakanta Swain

18:00–18:15

Astrophysical Constraints on Black Hole Formation in Interacting Dark Energy Model

Speaker

Mr Debasis Sahu

18:15–18:30 **Fall of Casimir energy in the non-commutative space-time.**

Speaker

Mr Suman Kumar Panja

18:30–18:45 **Extended Bose-Einstein condensate dark matter in $f(Q)$ gravity**

Speaker

Raja Solanki

18:45–19:00

Can self-interaction in supernova neutrinos cause changes in gravitational wave memory signals?

Speaker

Indranil Chakraborty

19:00