

## **Session Program**

**24-26 Apr 2025**

# **Cosmological Probes of New Physics @ Notre Dame**

## ***Morning Session***

University of Notre Dame  
Nieuwland Science Hall, Notre Dame, IN

## Thursday 24 April

09:15

### Morning Session

**Session** | **Location:** Jordan Hall of Science, Reading Room | **Convener:** Gustavo Marques-Tavares

09:15–09:45

#### Detecting dark influences on the expansion rate

**Speaker**

Adrienne Erickcek

09:45–10:15

#### Large-scale homogeneity in the era of precision cosmology

**Speaker**

Francis-Yan Cyr-Racine

10:15–10:45

#### Learning about substructure and dark matter microphysics from ultra-faint dwarf dynamics

**Speaker**

Harikrishnan Ramani

10:45

Friday 25 April

09:15

Morning Session

Session | Location: Duncan Student Center (South), 210, Notre Dame | Convener: Prof. Christopher Kolda

09:15–09:45

LSS Parameter Inference with Machine Learning - Recent Results and Challenges

Speaker

Moritz Muenchmeyer

09:45–10:15

Populating hidden sectors through gravitational particle production

Speaker

Rocky Kolb

10:15–10:45

Cosmic tensions as a launchpad for discoveries

Speaker

Tanvi Karwal

10:45

# Saturday 26 April

09:15

## Morning Session

**Session** | **Location:** Duncan Student Center (South), 210, Notre Dame

09:15–09:45

**High-Precision CMB Power Spectra from ACT DR6: Implications for the Dark Sector and Cosmological Concordance**

**Speaker**

Colin Hill

09:45

11:30

## Morning Session

**Session** | **Location:** Duncan Student Center (South), 210, Notre Dame

11:30–12:00

**CMB Constraints on Non-Minimally Coupled Ultralight Dark Matter**

**Speaker**

Dr Subhajit Ghosh

12:00–12:30

**Galaxy Clustering Constraints with Simulation-Based Priors**

**Speaker**

Mikhail Ivanov

12:30