

**Session Program**

**21-25 Jul 2025**

**PASCOS 2025**

***Plenary session***

Durham

# Monday 21 July

09:30

## Plenary session

Session | Location: CLC 013

09:30–10:00

### Dark energy and cosmology from the latest DESI DR2 results

#### Speaker

Seshadri Nadathur

10:30

10:00–10:30

### The Classical Equations of Quantized Gauge Theories

#### Speaker

Surjeet Rajendran

11:00

## Plenary session

Session | Location: CLC 013

11:00–11:30

### Solving the strong CP problem in string-inspired theories with modular invariance

#### Speaker

Arsenii Titov

11:30–12:00

### New Developments in Neutrino (Astro)Physics

#### Speaker

Joachim Kopp

12:00–12:30

### The Quest for Evaporating Primordial Black Holes

#### Speaker

Lucien Heurtier

12:30

14:00

## Plenary session

Session | Location: CLC 013

14:30–15:00

### A top-down dS maximum in M-theory from Casimir energies

#### Speaker

Miguel Montero

15:00–15:30

### Infrared Surprises in Quantum Gravity

#### Speaker

Andrea Puhm

15:30

# Tuesday 22 July

09:00

## Plenary session

Session | Location: CLC 013

09:00–09:30

**The Dark Matter distribution of the Milky Way (its uncertainties and their impact on searches for new physics)**

**Speaker**

Prof. Fabio Iocco

09:30–10:00

**Higgs and ALP-Higgs near criticality at future colliders**

**Speaker**

Belen Gavela

10:00–10:30

**BSM Physics at the PTA Frontier**

**Speaker**

Kai Schmitz

10:30

11:00

## Plenary session

Session | Location: CLC 013

11:00–11:30

**Bootstrapping EFTs**

**Speaker**

Alex Pomarol

11:30–12:00

**Exploring the Boundaries of Technical Naturalness**

**Speaker**

Matthew McCullough

12:00–12:30

**AI in Fundamental Physics - Hype or Future?**

**Speaker**

Tilman Plehn

12:30

14:00

## Plenary session

Session | Location: CLC 013

14:00–14:30

**New light particles in B to K invisible decays**

**Speaker**

Jernej Kamenik

14:30–15:00

**Searches for Low-Mass Dark Matter**

**Speaker**

Clara Murgui

15:00–15:30

**Quantum and quantum-inspired algorithms for HEP quantum simulation**

15:30

**Speaker**

Simone Montangero

# Wednesday 23 July

09:00

## Plenary session

Session | Location: CLC 013

09:00–09:30

### CPV and CKM measurements at LHCb

#### Speaker

Mark Smith

09:30–10:00

### What rare decays and dark sector searches have in common

#### Speaker

Felicia Volle

10:00–10:30

### Tower Power

#### Speaker

Keith Dienes

10:30

11:00

## Plenary session

Session | Location: CLC 013

11:00–11:30

### Sequestered Conformal Anomaly Mediation (SCAM)

#### Speaker

Lisa Randall

11:30–12:00

### The QCDM alternative to $\Lambda$ CDM and DESI RD2 data

#### Speaker

Pran Nath

12:00–12:30

### Four-Forms and the Cosmological Constant Problem

#### Speaker

Tony Padilla

12:30

# Thursday 24 July

09:00

## Plenary session

Session | Location: CLC 013

09:00–09:30 **How large can lepton mixing be?**

### Speaker

José Santiago

09:30–10:00 **Dark Sector searches at Belle and Belle II**

### Speaker

Eiasha Washeed

10:00–10:30  **$B \rightarrow D^{(*)} \tau \nu$  and  $b \rightarrow s$  penguin anomalies at Belle and Belle II**

### Speaker

Koji Hara

10:30

11:00

## Plenary session

Session | Location: CLC 013

11:00–11:30 **Symmetry Constraints on Defect Dynamics**

### Speaker

Christian Copetti

11:30–12:00 **Machine Learning for String Compactifications**

### Speaker

Magdalena Larfors

12:00–12:30

**Non-invertible Symmetries and Gapped Phases of Four-Dimensional Quantum Fields**

### Speaker

Michele Del Zotto

12:30

14:00

## Plenary session

Session | Location: CLC 013

14:00–14:30

**Astrophysics and Particle Physics with High-Energy Neutrino Telescopes**

### Speaker

Dan Hooper

14:30–15:00

**New physics searches with coherent elastic neutrino-nucleus scattering**

### Speaker

Valentina De Romeri

15:00–15:30

**The Universe is not statistically isotropic**

15:30

**Speaker**

Glenn Starkman

# Friday 25 July

09:00

## Plenary session

**Session** | **Location:** CLC 013

09:00–09:30

### CP conservation in the strong interactions

**Speaker**

Bjorn Garbrecht

09:30–10:00

### First-Order Cosmological Phase Transitions

**Speaker**

Michael Baker

10:00–10:30

### String theory and experiment: A new hope

**Speaker**

Nissan Itzhaki

10:30

11:00

## Plenary session

**Session** | **Location:** CLC 013

11:00–11:30

### Confronting Cosmological Catastrophes

**Speaker**

Jeremy Sakstein

11:30–12:00

### String cosmology and evolving moduli fields after inflation

**Speaker**

Ed Copeland

12:00–12:30

### Effective Theories for Quantum Black Holes

**Speaker**

Francesco Sannino

12:30