Session Program

Jul 7 – 11, 2025

Dark Side of the Universe 2025

Parallel 1

Mon, July 7

1:30 PM

Parallel 1: Direct detection I

Session | **Location:** A5502 | **Convener:** Laura Baudis

1:30 – 1:50 PM **Status and results from the XENONnT Dark Matter experiment**

Speaker
Ran Budnik

1:50 – 2:10 PM **Shining Light on Dark Matter With LZ**

Speaker
Prof. Matthew Szydagis

2:10 – 2:30 PM **Searches for dark sector particles at Belle and Belle II**

Speaker
Daniel Marcantonio

2:30 – 2:50 PM **Status of CRESST**

Speaker
Colin James Moore

2:50 – 3:10 PM

COSINUS – A NaI cryogenic calorimeter to resolve the long standing DAMA/LIBRA dark matter claim.

Speaker
Dr Matthew Stukel

3:10 PM

3:40 PM

Parallel 1: DM in halos I

Session | **Location:** A5502 | **Convener:** Annika Peter

3:40 – 4:00 PM **Dark Stars, a possible solution to two recent astronomical puzzles**

Speaker
Cosmin Ilie

4:00 – 4:20 PM

Cold collisionless dark matter halos are consistent with observations of galaxies

Speaker
Liliya Williams

4:20 – 4:40 PM

MUSE-DARK: Dark matter halo properties of intermediate-z star-forming galaxies

Speaker
Bianca-Iulia Ciocan

4:40 – 5:00 PM

Dark plasmas in the nonlinear regime: constraints from particle-in-cell simulations

Speaker
Pierce Giffin

5:00 – 5:20 PM

Probing long-range dark matter-baryon interactions in compact stellar systems

Speaker
Zihui Wang

5:20 PM

Tue, July 8

1:30 PM

Parallel 1: Direct detection II

Session | **Location:** A5502 | **Convener:** Matthew Szydagis

1:30 – 1:50 PM

The SABRE South Experiment at the Stawell Underground Physics Laboratory

Speaker
Yi Yi Zhong

1:50 – 2:10 PM

Searches for Dark Matter with the ATLAS Experiment at the LHC

Speaker
Volker Andreas Austrup

2:10 – 2:30 PM

Dark matter direct detection and constraints on non-relativistic effective operators

Speaker
Niklas Zimmermann

2:30 – 2:50 PM

Refining the sensitivity of new physics searches with ancient minerals

Speaker
Audrey Fung

2:50 – 3:10 PM

Dark-Matter Mass from Angular Scanning

Speaker
Prof. Jong-Chul Park

3:10 PM

3:40 PM

Parallel 1: Dark energy II

Session | **Location:** A5502 | **Convener:** Robert Brandenberger

3:40 – 4:00 PM

Is dark energy dependent on cosmological curvature?

Speaker
Claia Bryja

4:00 – 4:20 PM

Observational scalings testing modified gravity

Speaker
Armine Amekhyan

4:20 – 4:40 PM

Simple quintessence models in light of DESI-BAO observations

Speaker
Varun Muralidharan

4:40 – 5:00 PM

Crossing the phantom divide

Speaker
James Cline

5:00 – 5:20 PM

Apparent w<-1 and a Lower S8 from Dark Axion and Dark Baryons Interactions

Speaker
Meng-Xiang Lin

5:20 PM

Wed, July 9

11:00 AM

Parallel 1: Black holes / remnants II

Session | **Location:** A5502 | **Convener:** Edward Wilson-Ewing

11:00 – 11:20 AM

Reconstructing PTA measurements via early seeding of supermassive black holes

Speaker
Sohan Ghodla

11:20 – 11:40 AM

CMB signatures of dark matter interactions beyond the power spectrum

Speaker
Yacine Ali-Haimoud

11:40 AM – 12:00 PM

New dynamical probes of primordial black holes

Speaker
Benjamin Lehmann

12:00 – 12:20 PM

Probing Primordial Black Hole and Dark Matter Energy Injection Using the 21-cm Power Spectrum

Speaker
Yitian Sun

12:40 PM

Thu, July 10

1:30 PM

Parallel 1: Supernovae

Session | **Location:** A5502 | **Convener:** Michael Stadlbauer

1:30 – 1:50 PM

The second Type I Supernova data release of the Zwicky Transient Facility

Speaker
Philippe ROSNET

1:50 – 2:10 PM

Study of cosmic expansion anisotropy with type Ia supernovae from Zwicky Transient Facility

Speaker
Chloé Barjou-Delayre

2:10 – 2:30 PM

Heating the dark matter halo with dark radiation from supernovae

Speaker
Stefan Vogl

2:30 – 2:50 PM

Measuring Dark Energy parameters with Type Ia Supernovae in LSST

Speaker
Philippe Gris

2:50 – 3:10 PM

Supernova Bounds on Neutrinophilic Dark Matter

Speaker
Christopher Cappiello

3:10 PM

3:40 PM

Parallel 1: Astrophysical / cosmological DM probes I

Session | **Location:** A5502 | **Convener:** Christopher Cappiello

3:40 – 4:00 PM

Dimming Starlight with Dark Compact Objects

Speaker
Leo Kim

4:00 – 4:20 PM

Picolensing as a probe of compact dark matter

Speaker
Dr Sergey Sibiryakov

4:20 – 4:40 PM

Probing dark matter annihilation through planetary airglow and internal heat flow

Speaker
Marianne Moore

4:40 – 5:00 PM

Constraining Dark Acoustic Oscillations with the High-Redshift UV Luminosity Function

5:20 PM

Speaker
Jared Barron

Fri, July 11

11:10 AM

Parallel 1: Gravitational waves / phase transitions II

Session | **Location:** A5502 | **Convener:** Csaba Balazs

11:10 – 11:30 AM

What happens when supercooling is terminated by curvature flipping?

Speaker
Tomasz Dutka

11:30 – 11:50 AM

Mapping the Gravitational Wave Sky from Primordial Black Holes

Speaker
Cassandra Moats

11:50 AM – 12:10 PM

RG Improvement of the Scalar Effective Potential in Finite Temperature Quantum Field Theory

Speaker
Andrija Rasovic

12:10 – 12:30 PM

Estimation of the Hubble parameter from compact object catalogues without threshold

Speaker
Reiko Harada

12:30 – 12:50 PM

Non-equilibrium features in false vacuum decay at finite temperature

Speaker
Dr Sergey Sibiryakov

12:50 PM