

Session Program

5-9 Dec 2022

The Dark Side of the Universe DSU2022

Plenary

Monday 5 December

09:15

Plenary

Session | **Location:** Ainsworth Building, G03 | **Convener:** Prof. Matthew Dolan

09:15–09:30 **Opening**

Location

Ainsworth Building, G03

09:30–10:00 **News from sub-GeV FI(N)Ps**

Speaker

Joerg Jaeckel

Location

Ainsworth Building, G03

10:00–10:30 **Primordial Black Holes as Dark Matter**

Speaker

Dr Florian Kühnel

Location

Ainsworth Building, G03

10:30

11:00

Plenary

Session | **Location:** Ainsworth Building, G03 | **Convener:** Ciaran O'Hare

11:00–11:30 **Light sub-GeV dark matter at accelerators**

Speaker

Adam Ritz

11:30–12:00 **Status and prospects of dark matter direct detection**

Speaker

Theresa Fruth

12:00–12:30 **Dark matter searches in the southern hemisphere**

Speaker

Elisabetta Barberio

12:30

Tuesday 6 December

09:00

Plenary

Session | **Location:** Ainsworth Building, G03 | **Convener:** Prof. Nicole Bell

09:00–09:30

Neutron Star Heating: WIMP DM vs others

Speaker

Natsumi Nagata

09:30–10:00

Dark matter and dark sectors in stars

Speaker

Aaron Vincent

10:00–10:30

The light of a Billion Stars: Dark matter and the stellar halo

Speaker

Geraint Lewis

10:30

11:00

Plenary

Session | **Location:** Ainsworth Building, G03 | **Convener:** Prof. Archil Kobakhidze

11:00–11:30

Lower than freeze-in portal couplings can still generate DM and be measured via Gravitational Waves

Speaker

Alexander Vikman

11:30–12:00

Dark energy, black holes and effective field theory

Speaker

Shinji Mukohyama

12:00–12:30

Lensing reconstruction of ALiCPT-1

Speaker

Bin Hu

12:30

Wednesday 7 December

09:00

Plenary

Session | **Location:** Ainsworth Building, G03 | **Convener:** Alejandro Ibarra

09:00–09:30 **Seeking the mechanism of neutrino mass generation: a brief review**

Speaker
Prof. Raymond Volkas

09:30–10:00 **Charting the leptogenesis landscape**

Speaker
Julia Harz

10:00–10:30 **Neutrino oscillation experiments**

Speaker
Sunny Seo

10:30

11:00

Plenary

Session | **Location:** Ainsworth Building, G03 | **Convener:** Danny Marfatia

11:00–11:30 **Physics potential of CEvNS in the Standard Model and beyond**

Speaker
Valentina De Romeri

11:30–12:00 **Supernova neutrinos: probing physics within and beyond the Standard Model**

Speaker
Meng-Ru Wu

12:00–12:30 **Neutrino astronomy**

Speaker
Jenni Adams

12:30

Thursday 8 December

09:00

Plenary

Session | **Location:** Ainsworth Building, G03 | **Convener:** Osamu Seto

09:00–09:30

5D perspectives on the QCD axion

Speaker

Tony Gherghetta

09:30–10:00

Production of (dark) matter in the early stage of the Universe

Speaker

Yann MAMBRINI

10:00–10:30

Role of dark Higgs boson in DM physics and Higgs inflation

Speaker

Prof. Pyungwon Ko

10:30

11:00

Plenary

Session | **Location:** Ainsworth Building, G03 | **Convener:** Masahiro Kawasaki

11:00–11:30

Multi-field inflation

Speaker

Jinn-Ouk Gong

11:30–12:00

Early universe cosmology with the stochastic gravitational wave background

Speaker

Sachiko Kuroyanagi

12:00–12:30

Cosmic ray boosted dark matter

Speaker

Prof. Yu-Feng Zhou

12:30

Friday 9 December

09:00

Plenary

Session | **Location:** Ainsworth Building, G03 | **Convener:** Dr Chris Gordon

09:00–09:30

Detection of the Sagittarius Dwarf Spheroidal Galaxy in Gamma-Rays

Speaker

Roland Crocker

09:30–10:00

High-energy astrophysics with gamma-ray telescopes

Speaker

Dr Gavin Rowell

10:00–10:30

Improving Theoretical Predictions for Gamma-Ray Signals from Heavy WIMPs

Speaker

Tracy Slatyer

10:30

11:00

Plenary

Session | **Location:** Ainsworth Building, G03 | **Convener:** Sven Heinemeyer

11:00–11:30

The Universe as a Lab for New Physics Across Cosmic Times

Speaker

Prof. Cora Dvorkin

11:30–12:00

Dark matter with GAMBIT

Speaker

Csaba Balazs

12:00–12:30

Has the CMSSM survived Planck, the LHC, Direct and Indirect Detection experiments?

Speaker

Keith A. Olive

12:30