

Session Program

5-9 Dec 2022

The Dark Side of the Universe DSU2022

BSM physics

Tuesday 6 December

16:10

BSM physics

Session | **Location:** Old Main Building, 229 | **Convener:** Dr Venus Keus

16:10–16:30

Correlated signals of first-order phase transitions in dark sectors

Speaker

Danny Marfatia

16:30–16:50

Improved stellar limits on a light CP-even scalar

Speaker

Shyam Balaji

16:50–17:10

Complementarity of Direct Detection experiments and Collider searches

Speaker

Sven Heinemeyer

17:10–17:30

Electroweak corrections to Dark Matter Direct Detection

Speaker

Rui Santos

17:30–17:50

Classification of CP-violating operators in SMEFT

Speaker

Risshin Okabe

17:50

Thursday 8 December

14:00

BSM physics

Session | **Location:** Old Main Building, 229 | **Convener:** Otari Sakhelashvili

14:00–14:20

Quantum gravity, the strong CP problem and the companion axion solution

Speaker

Archil Kobakhidze

14:20–14:40

Dark radiation constraints on hidden gauge-axion system

Speaker

Osamu Seto

14:40–15:00

Fake GUT

Speaker

Keiichi WATANABE

15:00–15:20

Renormalization group effects in non-universal DFSZ axion models

Speaker

Shohei Okawa

15:20–15:40

Exploring the cosmological dark matter coincidence using infrared fixed points

Speaker

Alex Ritter

15:40

16:10

BSM physics

Session | **Location:** Old Main Building, 229 | **Convener:** Tobias Felkl

16:10–16:30

LEvitated MAgnets for QUantum MEtrology

Speaker

Pavel Fadeev

16:30–16:50

Recent Belle II results related to lepton-flavor universality and violation

Speaker

Marco Milesi

16:50–17:10

Recent dark-sector results at Belle II

Speaker

Chia-Ling Hsu

17:10–17:30

A Proposed Australian Facility for Particle and Nuclear Physics at the MeV-scale

Speaker

Dr Lindsey Bignell

17:30