Session Program

Jul 17 – 21, 2023

SUSY 2023

Particle cosmology: Theory and Experiment

University of Southampton Highfield Campus, Building 100, Highfield Campus
Website : https://www.southampton.ac.uk/student-life/campuses/highfield

Mon, July 17

4:00 PM

Particle cosmology: Theory and Experiment

Session | **Location:** B46/2003

4:00 – 4:20 PM

Neutrino mass from cosmology: the impact of long-ranged interactions

Speaker
Ivan Esteban

4:20 – 4:40 PM

Exploring Left-Right symmetry in Cosmic Microwave Background

Speaker
Dr Chayan Majumdar

4:40 – 5:00 PM

A global analysis of decaying cosmological ALPs

Speaker
Dr Tomas Gonzalo

5:00 – 5:20 PM

CMB birefringence from axion strings

Speaker
Andrew Long

5:20 PM

5:40 PM

Particle cosmology: Theory and Experiment

Session | **Location:** B46/2003

5:40 – 6:00 PM

Narrowing the mass range of ultra-light dark matter

Speaker
Prof. Elisa G. M. Ferreira

6:00 – 6:20 PM

Towards the Detection of Ultralight Dark Photon Dark Matter Using Optomechanical Sensors

Speaker
Dorian Amaral

6:20 – 6:40 PM

Revisiting Affleck-Dine Leptogenesis with light sleptons

Speaker
Juntaro Wada

6:40 – 7:00 PM

Electroweak Phase Transition and Prospects of Detecting Gravitational Waves in an Extended Supersymmetric Model

Speaker
Mr Pankaj Borah

7:00 PM

Tue, July 18

4:00 PM

Particle cosmology: Theory and Experiment

Session | **Location:** B46/2003

4:00 – 4:20 PM **Dark matter searches from CMS**

Speakers
Laurent Thomas, Laurent Thomas

4:20 – 4:40 PM

Halo-independent bounds on the non-relativistic effective theory of WIMP-nucleon scattering from direct detection and neutrino observations

Speaker
Dr Arpan Kar

4:40 – 5:00 PM **FIMPs @ direct detection**

Speaker
Francesco Costa

5:00 – 5:20 PM

Dark matter indirect detection limits from complete annihilation patterns

Speaker
Dr Björn Herrmann

5:20 PM

5:40 PM

Particle cosmology: Theory and Experiment

Session | **Location:** B46/2003

5:40 – 6:00 PM **Minimal FIMP models during reheating and inflationary constraints**

Speaker
Mr Emanuele Copello

6:00 – 6:20 PM **Primordial Black Holes and Stochastic Inflation beyond slow roll**

Speaker
Swagat Saurav Mishra

6:20 – 6:40 PM **Flavor Leptogenesis During Reheating Era**

Speaker
Rishav Roshan

6:40 – 7:00 PM **Relativistic expansion of bubbles and EW Baryogenesis**

Speaker
Giulio Barni

7:00 PM

Wed, July 19

4:00 PM

Particle cosmology: Theory and Experiment

Session | **Location:** B46/2003

4:00 – 4:20 PM .

4:20 – 4:40 PM .

4:40 – 5:00 PM

Assessing the Role of Finite Temperature Corrections in Dark Matter Freeze-In

Speaker
Emanuele Copello

5:00 – 5:20 PM

Phase transitions in strongly-coupled gauge theories and glueball Dark Matter

Speaker
Roman Pasechnik

5:20 PM

5:40 PM

Particle cosmology: Theory and Experiment

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5:40 – 6:00 PM

Higgs Balls: Building Non-Thermal Topological Solitons with the Higgs Field

Speaker
Lauren Pearce

6:00 – 6:20 PM **Audible Gravitational Echoes of New Physics**

Speaker
Antonio Morais

6:20 – 6:40 PM **Gravitational waves from first order phase transitions**

Speaker
Peter Athron

6:40 – 7:00 PM **Pseudo-monopoles from dark topological defects**

Speaker
Akifumi Chitose

7:00 PM

Fri, July 21

2:00 PM

Particle cosmology: Theory and Experiment

Session | **Location:** B46/2003

2:00 – 2:20 PM **FOEWPT, THCs and GWs in the 2HDM**

Speaker
Sven Heinemeyer

2:20 – 2:40 PM

Lepton asymmetry from Q-balls and enhancement of second-order gravitational waves

Speaker
Prof. Masahiro Kawasaki

2:40 – 3:00 PM

Towards distinguishing Dirac from Majorana neutrino mass with gravitational waves

Speaker
Moinul Rahat

3:00 – 3:20 PM **Did NANOGrav hear the sound of the Universe boiling?**

Speaker
Graham White

3:20 – 3:40 PM **Probing Leptogenesis with Gravitational Waves**

Speaker
Martin Mojahed

3:40 – 4:00 PM

New Bounds on Magnetic Monopoles from Primordial Magnetic Fields

Speaker
Daniele Perri

4:00 PM