

Session Program

3-8 Jul 2016



SUSY 2016

Dark Matter and Particle Astrophysics

The University of Melbourne, Carrillo Gantner Theatre
Sidney Myer Asia Centre The University of Melbourne VIC 3010 Australia

Monday 4 July

14:00

Dark Matter and Particle Astrophysics

Session |

Location: Carrillo Gantner Theatre, Carrillo Gantner Theatre, Sidney Myer Asia Centre The University of Melbourne
 Venue Australia Corbett

14:00–14:20

Distinguishing between Warm Dark Matter and Late Kinetic Decoupling using CMB spectral distortions.

Speaker

James Diacoumis

14:20–14:40

Relic density and baryogenesis from natural SUSY with mixed axion-higgsino dark matter

Speaker

Howard Baer

14:40–15:00

Freeze-in of light dark matter

Speaker

Rupert Coy

15:00–15:20

Nonperturbative Dynamics in Dark Matter Freezeout

Speaker

William Shepherd

15:20–15:40

Theoretical uncertainty of the supersymmetric dark matter relic density

Speaker

Julia Harz

15:40–16:00

Higgs Inflation and UV completion

Speaker

Anupam Mazumdar

16:00

16:30

Dark Matter and Particle Astrophysics

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Location: Carrillo Gantner Theatre, Carrillo Gantner Theatre, Sidney Myer Asia Centre The University of Melbourne
 Venue Australia Mazumdar

16:30–16:50

Dark Forces in the Sky: signals from Z' and the dark Higgs

Speaker

Dr Yi Cai

16:50–17:10

Constraints on dark matter annihilation to fermions and a photon

Speaker

Debtosh Chowdhury

17:10–17:30

Indirect detection of sub-GeV dark matter

Speaker

Adam Coogan

17:30–17:50

Dark matter annihilation into right-handed neutrinos and the galactic center gamma-ray excess

Speaker

Yi-Lei Tang

18:10

Tuesday 5 July

14:00

Dark Matter and Particle Astrophysics

Session |
Location: Carillo Gantner Theatre, Carrillo Gantner Theatre, Sidney Myer Asia Centre The University of Melbourne
Convenor: Graeme Belanger

14:00-14:20 Searching for Dark Matter with the ATLAS Detector

Speaker
Laser Seymour Kaplan

14:20-14:40 Searches for dark matter in hadronic final states at CMS

Speaker
Cristian Ignacio Pena Herrera

14:40-15:00 Searches for dark matter in non-hadronic final states at CMS

Speaker
Bhawna Gomber

15:00-15:20 Searches for dark matter in heavy-flavor final states at CMS

Speaker
Douglas Ryan Berry

15:20-15:40 Unitarity constraints for Effective Field Theories

Speaker
Dr Giorgio Busoni

15:40-16:00
Mass-constraining variables to confront dark matter production at the LHC

Speaker
Mr Abhaya Kumar Swain

16:00

16:30

Dark Matter and Particle Astrophysics

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Location: Carillo Gantner Theatre, Carrillo Gantner Theatre, Sidney Myer Asia Centre The University of Melbourne
Convenor: Anupam Mazumdar

16:30-16:50
Exotic Prompt and Non-Prompt Leptonic Decays as a Window to the Dark Sector with ATLAS

Speaker
Miriam Deborah Joy Diamond

16:50-17:10 Search for Dark matter with XENON1T Experiment

Speaker
Dr Marie Cecile Piro

17:10-17:30 The DEAP-3600 Dark Matter Direct Detection Experiment

Speaker
Joseph Walding

17:30–17:50

Sidereal modulation searches for the direct detection of self-interacting dark matter

Speaker

Mr Jackson Clarke

17:50–18:10

The status of KIMS-NaI experiment at Yangyang underground laboratory

Speaker

Nam Young KIM

18:10–18:30

Reconstructing WIMP dark matter properties through signal measurements in direct detection, Fermi-LAT, and CTA

Speaker

Enrico Maria Sessolo

18:30

Thursday 7 July

14:00

Dark Matter and Particle Astrophysics

Session |
Location: Carrillo Gantner Theatre, Carrillo Gantner Theatre, Sidney Myer Asia Centre The University of Melbourne
Convenor: Augusto Busoni

14:00-14:20 Right-handed sneutrino dark matter

Speaker
Genevieve Belanger

14:20-14:40 Combined analysis of effective Higgs portal dark matter models

Speaker
Mr Ankit Beniwal

14:40-15:00 Minimal Majoronic Dark Radiation and Dark Matter Model and its Phenomenology

Speaker
We-Fu Chang

15:00-15:20 Top-philic Scalar DM with a Vector-like Top Partner

Speaker
Peiwen Wu

15:20-15:40 Semi-analytical approaches in particle cosmology

Speaker
Graham White

15:40-16:00 Gravitationally Bound Condensates Formed by Bosons with Potential Energy $V(A) = (1 - \cos(A/f))$

Speaker
Rohana Wijewardhana

16:00

16:30

Dark Matter and Particle Astrophysics

Session |
Location: Carrillo Gantner Theatre, Carrillo Gantner Theatre, Sidney Myer Asia Centre The University of Melbourne
Convenor: Genevieve Belanger

16:30-16:50 Gravitational Wave Instabilities in the Cosmic Neutrino Background

Speaker
Neil Barrie

16:50-17:10 Constraints on cosmological viscosity from GW150914 observation

Speaker
Gaurav Goswami

17:10-17:30 Layered dielectric haloscopes: a new way to detect axion dark matter

Speaker
Alex Millar

17:30-17:50

Searches for Axion-Like Particles with NGC1275: Observation of Spectral Modulations

Speaker

Nicholas Jennings

17:50-18:10

Colour Breaking Baryogenesis

Speaker

Graham White

18:10