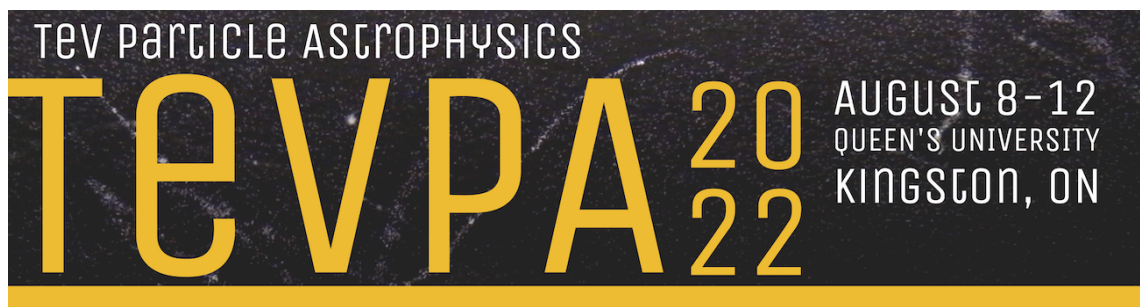


Session Program

8-12 Aug 2022



TeVPA 2022

Dark Matter

Sunday 7 August

14:00

Dark Matter: I - BioSci 1101

Session | Location: BioSci 1101 | Convener: Dr Ilias Cholis

14:00–14:20 **Mirror Stars and other probes of Dark Complexity**

Speaker
David Curtin

14:20–14:40 **Discovering Composite Dark Matter with the Migdal Effect**

Speaker
Mr Javier Acevedo

14:40–15:00 **Primordial Black Hole Dark Matter in the Context of Extra Dimensions**

Speaker
Avi Friedlander

15:00–15:20 **Q-monopole-ball: a topological and nontopological soliton**

Speaker
Dr Nicholas Orlofsky

15:20

15:50

Dark Matter: II - BioSci 1101

Session | Location: | Convener: David Curtin

15:50–16:10

Search for gamma-ray spectral lines from Dark Matter annihilation in the Galactic Centre region with MAGIC

Speaker
Daniel Kerszberg

16:10–16:30 **The Status of the Galactic Center Excess**

Speaker
Dan Hooper

16:30–16:50

Assessing the Impact of Hydrogen Absorption on the Characteristics of the Galactic Center Excess

Speaker
martin pohl

16:50–17:10

Revisiting the Gamma-Ray Galactic Center Excess with Multi-Messenger Observations

Speaker
Dr Ilias Cholis

17:10

Monday 8 August

14:00

Dark Matter: III - Stirling Auditorium

Session | **Location:** | **Convener:** Prof. Seodong Shin

14:00–14:20 **Searching for Dark Matter with the DAMIC at SNOLAB Experiment**

Speaker

Dr Ian Lawson

14:20–14:40 **General Dark Matter-Electron Interactions in Detector Materials**

Speaker

Einar Urdshals

14:40–15:00

Dark Matter from Monogem: Constraints on Velocity-Dependent Dark Matter-Nucleus Scattering

Speaker

Christopher Cappiello

15:00–15:20 **Cosmic-ray Neutrino Boosted Dark Matter (ν BDM)**

Speaker

Prof. Jong-Chul Park

15:20

14:00

Dark Matter: IV - Chernoff Auditorium

Session | **Location:** Chernoff Auditorium | **Convener:** Daniel Gilman

14:00–14:20

A machine learning approach to searching dark matter subhalos in Fermi-LAT sources

Speaker

Kathrin Nippel

14:20–14:40

Combined dark matter searches towards dwarf spheroidal galaxies with Fermi-LAT, HAWC, H.E.S.S., MAGIC, and VERITAS

Speaker

Celine Armand

14:40–15:00

Constraining Dark Matter Decays at the keV Scale with the NuSTAR Observatory

Speaker

Mr Brandon Roach

15:00–15:20

Searching for Secluded Dark Matter with Present and Future Gamma-ray Observatories

Speaker

Aion Viana

15:20

15:50

Dark Matter: V - Stirling Auditorium**Session** | **Location:** | **Convener:** Christopher Cappiello

15:50-16:10

Signatures of primordial black hole dark matter at DUNE and THEIA**Speaker**

Valentina De Romeri

16:10-16:30

Direct detection of light new species from evaporating primordial black holes**Speaker**

Dr Marco Chianese

16:30-16:50

Hidden dynamics of a sub-component dark matter**Speaker**

Dr Seodong Shin

16:50-17:10

Ab initio calculations of structure factors for dark matter searches**Speaker**

Dr Baishan Hu

17:10

15:50

Dark Matter: VI - Chernoff Auditorium**Session** | **Location:** Chernoff Auditorium | **Convener:** Aion Viana

15:50-16:10

Constraining resonant dark matter self-interactions with strong gravitational lenses**Speaker**

Dr Daniel Gilman

16:10-16:30

Using small-scale lensing anisotropies to constrain dark matter.**Speaker**

Mr Birendra Dhanasingham

16:30-16:50

Searching for the fundamental nature of dark matter in the cosmic large-scale structure**Speaker**

Keir Rogers

16:50-17:10

Jeans Model Beyond Spherical Symmetry**Speaker**

Adam Smith-Orlik

17:10-17:30

Measuring dark matter subhalos in strong lenses with truncated marginal neural ratio estimation**Speaker**

Adam Coogan

17:30

Tuesday 9 August

14:00

Dark Matter: VII - BioSci 1101

Session | Location: | Convener: Erez Etzion

14:00-14:20

The NEWS-G light Dark Matter search experiment: Results of a methane gas physics campaign

Speaker

Mr Daniel Durnford

14:20-14:40

Latest results from DEAP-3600

Speaker

Simon Viel

14:40-15:00

DarkSide-20k experiment and its veto

Speaker

Marek Bohdan Walczak

15:00-15:20

The DarkSide-20k TPC and underground argon cryogenic system

Speaker

Thomas Nathan Thorpe

15:20

14:00

Dark Matter: VIII - BioSci 1102

Session | Location: | Convener: Dr Tomas Gonzalo

14:00-14:20

A new path for dark matter searches: cross-correlation between gamma rays and gravitational tracers

Speaker

Elena Pinetti

14:20-14:40

Simulation and Indirect Detection of Dark Glueball Showers

Speaker

Caleb Gemmill

14:40-15:00

Impact of the particle physics model on dark matter indirect detection limits

Speaker

Celine Armand

15:00-15:20

Warm dark matter searches from the Galactic halo

Speaker

Ariane Dekker

15:20

15:50

Dark Matter: IX - BioSci 1101

Session | Location: | Convener: Marco Chianese

15:50-16:10

The CYGNO experiment, a directional detector for direct Dark Matter searches

Speaker

Mr David J. G. Marques

16:10-16:30

Search for Dark Matter with the PICO Experiment

Speaker

Guillaume Giroux

16:30-16:50

Hunting for Sub-GeV DM with the SENSEI experiment

Speaker

Erez Etzion

16:50-17:10

The SABRE South Experiment at the Stawell Underground Physics Laboratory

Speaker

William Melbourne

17:10-17:30

The KDK experiment: measuring a rare decay of potassium relevant to dark matter searches

Speaker

Philippe Di Stefano

17:30

15:50

Dark Matter: X - BioSci 1102

Session | Location: | Convener: Elena Pinetti

16:10-16:30

Constraining axion-like particles with the diffuse gamma-ray flux measured by the Large High Altitude Air Shower Observatory

Speaker

Leonardo Mastrototaro

16:30-16:50

Searching for Axionlike Particles from Gamma-ray Bursts with Fermi

Speaker

Milena Crnogorcevic

16:50-17:10

A global analysis of decaying ALPs

Speaker

Dr Tomas Gonzalo

17:10

Wednesday 10 August

14:00

Dark Matter: XI - Chernoff Auditorium

Session | Location: | Convener: Marco Taoso

14:00–14:20 **Search for dark matter signatures with ANTARES and KM3NeT**

Speaker

Sara Rebecca Gozzini

14:20–14:40 **Dark Matter decay to neutrinos**

Speaker

Diyaselis Delgado Lopez

14:40–15:00

Global fit of Non-relativistic Effective Operator Dark Matter using Solar Neutrinos

Speaker

Neal Avis Kozar

15:00–15:20 **Dark Matter-neutrino interactions through a one-loop diagram**

Speaker

Karen Macías Cárdenas

15:20

14:00

Dark Matter: XII - Stirling Auditorium

Session | Location: | Convener: Philip Von Doetinchem

14:00–14:20 **Velocity-dependent dark matter annihilation from simulations**

Speaker

Nassim Bozorgnia

14:20–14:40 **Dark Matter Annihilations in Massive Stars: A New Lease on Life?**

Speaker

Joshua Ziegler

14:40–15:00

Faint light of old neutron stars from dark matter capture and detectability at the James Webb Space Telescope

Speaker

Shiuli Chatterjee

15:20

15:50

Dark Matter: XIII - Chernoff Auditorium

Session | Location: | Convener: Sara Rebecca Gozzini

15:50–16:10

Novel Model Independent Constraints on Dark Matter and Cosmic Neutrinos

Speaker

Yu-Dai Tsai

16:10–16:30

Global fits of s-channel simplified models for dark matter with GAMBIT

	<p>Speaker Christopher Chang</p>
	<p>16:30-16:50 The semi-visible dark photon</p> <p>Speaker Matheus Hostert</p>
	<p>16:50-17:10</p> <p>Searching for inelastic dark matter with future laboratory experiments</p> <p>Speaker Marco Taoso</p>
	<p>17:10-17:30 First dark matter search result from the LZ experiment</p> <p>Speaker Sam Eriksen</p>
17:30	
15:50	<p>Dark Matter: XIV - Stirling Auditorium Session Location: Convener: Nassim Bozorgnia</p>
	<p>15:50-16:10 Cosmology of Atomic Dark Matter with CLASS</p> <p>Speaker Jared Barron</p>
	<p>16:10-16:30</p> <p>The General AntiParticle Spectrometer - Search for Dark Matter using Cosmic-ray Antinuclei</p> <p>Speaker Philip Von Doetinchem</p>
	<p>16:30-16:50 Axion dark matter-induced echo of supernova remnants</p> <p>Speaker Yitian Sun</p>
	<p>16:50-17:10 Towards Understanding the Origin of Cosmic-Ray Electrons</p> <p>Speakers Dr Valerio Vagelli, Valerio Vagelli</p>
17:10	