

## **Session Program**

**7-11 Aug 2017**



## **TeV Particle Astrophysics 2017 (TeVPA 2017)**

### ***Dark matter***

Columbus, Ohio, USA

Hosted by the Center for Cosmology and AstroParticle Physics (CCAPP), The Ohio State University

Sunday 6 August

14:00

Dark matter

Session | Location: The Athenaeum, Small Theater | Convener: Lina Necib

14:00-14:15 Diverse Galactic Rotation Curves and Self-Interacting Dark Matter

Speaker  
Hai-Bo Yu

14:15-14:30  
Can Self-interacting Dark Matter Solve the 'Diversity Problem' in Galactic Rotation Curves?

Speaker  
Anna Kwa

14:30-14:45  
Constraining Self-Interacting Dark Matter through Equal Mass Galaxy Cluster Mergers

Speaker  
Stacy Kim

14:45-15:00 SIMPs with Vector Mediators

Speaker  
Alexander Natale

15:00-15:15 Enabling Forbidden Dark Matter

Speaker  
Hongwan Liu

15:15-15:30 Chiral Effective Theory of Dark Matter Direct Detection

Speaker  
Joachim Brod

15:30

16:00

Dark matter

Session | Location: The Athenaeum, Athenian Room | Convener: dan hooper

16:00-16:15 Flavoured Dark Matter in Dark Minimal Flavour Violation

Speaker  
Simon Kast

16:15-16:30 Enhancing Dark Matter Annihilation Rates with Dark Bremsstrahlung

Speaker  
Nicole Bell

16:30-16:45 Dark Forces in the Sky: Signals from Z' and the Dark Higgs

Speaker  
Nicole Bell

16:45-17:00 Dark Matter Models for the Galactic Center Excess

18:00

16:00

<b>Speaker</b> Miguel Escudero	
<div>17:00-17:15</div> <b>Sharp spectral features from light dark matter decay via gravity portals</b>  <b>Speaker</b> Sebastian Ingenhütt	
<div>17:15-17:30</div> <b>Cooling sterile neutrino dark matter</b>  <b>Speaker</b> Dr Stefan Vogl	
<div>17:30-17:45</div> <b>Phase Method for the evaluation of Sommerfeld Enhancement</b>  <b>Speaker</b> Dr Hiren Patel	
<div>17:45-18:00</div> <b>Au Genesis From Cogenesis: Heavy Asymmetric Dark Matter Makes Gold</b>  <b>Speaker</b> Joseph Andrew Bramante	
<b>Dark matter</b> <b>Session</b>   <b>Location:</b> The Athenaeum, Small Theater   <b>Convener:</b> C Eric Dahl	
<div>16:00-16:15</div> <b>Measurement of low energy ionization signals from Compton scattering in a CCD dark matter detector</b>  <b>Speaker</b> Karthik Ramanathan	
<div>16:15-16:30</div> <b>The LDMX Experiment</b>  <b>Speaker</b> Joshua Hiltbrand	
<div>16:30-16:45</div> <b>The DAMIC experiment at SNOLAB</b>  <b>Speaker</b> Ryan Thomas	
<div>16:45-17:00</div> <b>Recent Results and Current Status of SuperCDMS</b>  <b>Speaker</b> Dr Tsuguo Aramaki	
<div>17:00-17:15</div> <b>MiniBooNE Dark Matter Search</b>  <b>Speaker</b> Ranjan Dharmapalan	
<div>17:15-17:30</div> <b>Scintillating Bubble Chamber for Dark Matter and CEvNS Detection</b>  <b>Speaker</b> Jianjie Zhang	
<div>17:30-17:45</div> <b>Recent results from the MAJORANA DEMONSTRATOR</b>	

18:00	<b>Speaker</b> Dr Jordan Myslik
	<b>17:45-18:00</b> <b>Free</b>

# Monday 7 August

14:00

## Dark matter

**Session** | **Location:** The Athenaeum, Small Theater | **Convener:** Francesca Calore

14:00-14:15

### Testing Cold Dark Matter with Strong Gravitational Lensing of AGN

#### Speaker

Anna Nierenberg

14:15-14:30

### Searching for dark disks using Gaia

#### Speaker

KATELIN SCHUTZ

14:30-14:45

### Dwarf Galaxy Population of a Nearby Star-Forming Galaxy and Implications for Dark Matter

#### Speaker

Alexandra Davis

14:45-15:00

### Searching for ultra-faint galaxies in three years of data from the Dark Energy Survey

#### Speaker

Keith Bechtol

15:00-15:15

### Black Mergers, Quiet Kilonovae, and r-Process Afterglow Donuts From Dark Matter

#### Speaker

Yu-Dai Tsai

15:15-15:30

### Dark Fires in the Sky: Model-Independent Dark Matter Detection via Kinetic Heating of Neutron Stars

#### Speaker

Nirmal Raj

15:30

16:00

## Dark matter

**Session** | **Location:** The Athenaeum, Small Theater | **Convener:** C Eric Dahl

16:00-16:15

### LUX, and the Combatting of the WIMP Lamppost Effect

#### Speaker

Prof. Matthew Szydagis

16:15-16:30

### The Next-Generation Dark Matter Project, LUX-ZEPLIN

#### Speaker

Prof. Matthew Szydagis

16:30-16:45

### First result of XENON1T

**Speaker**

Dr Lin Qing

**16:45-17:00****Dark matter search results from the PandaX-II experiment****Speaker**

Prof. Yong Yang

**17:00-17:15****Direct dark matter search with the CRESST-III experiment****Speaker**

Andrea Münster

**17:15-17:45****Dark matter searches with the PICO bubble chambers****Speaker**

Scott Fallows

**17:45-18:00****Search for hidden-photon Dark Matter with FUNK****Speaker**

Ralph Richard Engel

18:15

## Tuesday 8 August

14:00

### Dark matter

**Session** | **Location:** The Athenaeum, Small Theater | **Convener:** Kerstin Perez

14:00-14:15

#### Improving the search for extragalactic dark matter using N-body simulations

##### Speaker

Nicholas Rodd

14:15-14:30

#### A search for dark matter annihilation in nearby galaxy groups

##### Speaker

Siddharth Mishra Sharma

14:30-14:45

#### Searching for Dark Matter Annihilation in Milky Way Satellite Galaxies

##### Speakers

Alex Drlica-Wagner, Keith Bechtol, Andrea Albert

14:45-15:00

#### Sommerfeld-Enhanced J-Factors For Dwarf Spheroidal Galaxies

##### Speaker

Kimberly Boddy

15:00-15:15

#### Investigating what the Milky Way's dwarfs have to tell us about the Galactic Center extended excess

##### Speaker

Ryan Keeley

15:15-15:30

#### Searching for dark matter annihilation in Galactic substructure with photon statistics

##### Speaker

Laura Chang

15:30

16:00

### Dark matter

**Session** | **Location:** The Athenaeum, Small Theater | **Convener:** Benjamin Safdi

16:00-16:15

#### LD2DM scenario as an explanation of the AMS-02 positron excess

##### Speaker

Jatan Buch

16:15-16:30

#### Zero-Range Effective Field Theory for Resonant Wino Dark Matter

##### Speaker

Evan Johnson

16:30-16:45

#### Thermal Dark Matter Below an MeV

##### Speaker

Asher Berlin

17:00

16:45-17:00

## Indirect Detection of Neutrino Portal Dark Matter

### Speaker

Barmak Shams Es Haghi



## Wednesday 9 August

14:00

### Dark matter

**Session** | **Location:** The Athenaeum, Small Theater | **Convener:** Francesca Calore

14:00-14:15

#### Empirical Determination of Dark Matter Velocity Distribution Using Metal Poor Stars

**Speaker**

Lina Necib

14:15-14:30

#### On the applicability of Eddington's inversion methods to direct dark matter searches

**Speaker**

Martin Stref

14:30-14:45

#### Astrophysical distribution of dark matter and direct detection implications

**Speaker**

Nassim Bozorgnia

14:45-15:00

#### Reverse Direct Detection: Cosmic Ray Tests of Light Dark Matter Elastic Scattering

**Speaker**

Mr Christopher Cappiello

15:00-15:15

#### Determinations of Properties of Low-Mass WIMPs from Direct Dark Matter Detection Experiments with Non-negligible Threshold Energy

**Speaker**

Dr Chung-Lin SHAN

15:15-15:30

#### Hunting for WIMPs, how low should we go?

**Speaker**

Aaron Pierce

15:30

16:00

### Dark matter

**Session** | **Location:** The Athenaeum, Small Theater | **Convener:** Kerstin Perez

16:00-16:15

#### ABRACADABRA: A novel approach to detecting axion dark matter

**Speaker**

Benjamin Safdi

16:15-16:30

#### The Axion Dark Matter Experiment

**Speaker**

William Wester

18:00

16:30-16:45	<b>Axion and ALP Dark Matter Search with the International Axion Observatory (IAXO) and mini-IAXO</b>  <b>Speaker</b> Julia Katharina Vogel
16:45-17:00	<b>The Axion Resonant InterAction Detection Experiment (ARIADNE)</b>  <b>Speaker</b> Justin Shortino
17:00-17:15	<b>A Fresh Look at Axions: Using NuSTAR Solar Observations in Search for Dark Matter</b>  <b>Speaker</b> Jaime Ruz Armendariz
17:15-17:30	<b>Emission of Photons and Relativistic Axions from Axion Stars</b>  <b>Speaker</b> Abhishek Mohapatra
17:30-17:45	<b>Signatures of dark-matter sub-structure in axion direct detection experiments</b>  <b>Speaker</b> Joshua Foster
17:45-18:00	<b>Free</b>

# Thursday 10 August

14:00

## Dark matter

**Session** | **Location:** The Athenaeum, Small Theater | **Convener:** Francesca Calore

**14:00-14:15** **Full Sky Indirect Detection: Challenges and Strategies**

**Speaker**

Sheldon Campbell

**14:15-14:30** **Searching for Dark Matter in M31 with HAWC**

**Speaker**

Andrea Albert

**14:30-14:45** **Dark Matter Searches using Dwarf Galaxies with HAWC**

**Speaker**

Dr Tolga Yapici

**14:45-15:00**

**Galactic Dark Matter substructure searches with the Cherenkov Telescope Array (CTA)**

**Speaker**

Dr Moritz Hütten

**15:00-15:15**

**Multi-wavelength Approach to Indirect Dark Matter Searches with RX-DMFIT**

**Speaker**

Alex McDaniel

**15:15-15:30**

**The GAPS Experiment for Cosmic-ray Antinuclei Signatures of Dark Matter**

**Speaker**

Kerstin Perez

15:30

16:00

## Dark matter

**Session** | **Location:** The Athenaeum, Small Theater | **Convener:** Benjamin Safdi

**16:00-16:15**

**General Constraints on Decaying Dark Matter from the Cosmic Microwave Background**

**Speaker**

Chih-Liang Wu

**16:15-16:30**

**Primordial Black Holes as Dark Matter: Constraints from the Milky Way**

**Speaker**

Emma Storm

**16:30-16:45** **Supernova 1987A Constraints on Low-Mass Hidden Sectors**

18:00	<b>Speaker</b> Jae Hyeok Chang
	<b>16:45-17:00</b> <b>Dark matter velocity spectroscopy</b>
	<b>Speaker</b> Ranjan Laha
	<b>17:00-17:15</b> <b>AMEGO: Dark Matter Prospects</b>
	<b>Speaker</b> Manuel Meyer
	<b>17:15-17:30</b> <b>Impact of Galactic subhalos on indirect dark matter searches with cosmic-ray antiprotons</b>
	<b>Speaker</b> Mr Martin Stref
	<b>17:30-17:45</b> <b>Free</b>
	<b>17:45-18:00</b> <b>Free</b>