

## **Session Program**

**29 March 2023 to 1 April 2023**

## **UCLA Dark Matter 2023**

***Reception and Poster Session in the same  
room***

UCLA, PAB- 1-425

UCLA Department of Physics and Astronomy 475 Portola Plaza, Los Angeles, CA 90095

## Tuesday 28 March

19:00

### Reception and Poster Session in the same room

**Session** | **Location:** Faculty Center

19:00-19:01

#### Detection of dark matter-baryon matter non-gravitational interaction

**Speaker**

Marco Fedi

19:01-19:02

#### Developing Qubit-based Detectors for Low-threshold Dark Matter Searches in the LOUD Facility at Fermilab

**Speaker**

Ryan Linehan

19:02-19:03

#### Toward a Dark Matter Search with Phonon-Mediated MKID Devices at NEXUS

**Speaker**

Dylan Temples

19:03-19:04

#### Amplified J-factors in the Galactic Center for velocity-dependent darkmatter annihilation in FIRE simulations

**Speaker**

Daniel Mckeown

19:04-19:05

#### Interpretation of modulating amplitude and phase from the DAMA/LIBRA analysis method

**Speaker**

Sophia Hollick

19:05-19:06

#### Primordial Black Hole and Gravitational Wave Production from ALP String-Wall Networks

**Speakers**

ANNA SIMPSON, Jonah Hyman

19:06-19:07

#### Halo-independent analysis of direct DM detection through electron scattering

**Speaker**

Muping Chen

19:07-19:08

#### Calibrating the DMRadio-50L Detector

**Speaker**

Jessica Fry

19:08-19:09

#### Searching for Dark Matter From The Sun With Ten Years of IceCube Data

**Speaker**  
Jeffrey Lazar

19:09-19:10

### **Xenoscope — a full-scale vertical demonstrator for the DARWIN observatory**

**Speaker**  
Laura Baudis

19:10-19:11

### **Exploration of Wire-Array Metamaterials for the Plasma Axion Haloscope**

**Speaker**  
Nolan Kowitt

19:11-19:12

### **A mobile neutron spectrometer for the LNGS underground laboratory**

**Speaker**  
Melih Solmaz

19:12-19:13

### **Towards Quantum Charge Parity Detectors with meV Resolution for sub-GeV Dark Matter Detection**

**Speaker**  
Karthik Ramanathan

19:13-19:14

### **Backgrounds from Frenkel defects in direct detection experiments**

**Speaker**  
Mukul Sholapurkar

19:14-19:15

### **Calibrating the Migdal Effect in Semiconductors**

**Speaker**  
Daniel Baxter

19:15-19:16

### **Low energy calibration and characterization of solid-state dark matter detectors**

**Speaker**  
Kelly Stifter

19:16-19:17

### **Status for COSINE-100 Upgrade and COSINE-200**

**Speaker**  
Kim Jinyoung

19:17-19:18

### **A signal search for the dark axion portal in the NEON experiment**

**Speaker**  
Byoung-cheol KOH

19:18-19:19

### **Experimental tests for the fundamental properties of the electron with COSINE-100**

**Speaker**  
Yujin Lee

19:19-19:20

### **DMRadio-50L Experiment Status and Overview**

**Speaker**

Alexander Friedrich Leder

**19:20-19:21 DMRadio-m3: An Overview****Speaker**

Nicholas M. Rapidis

**19:21-19:22 Observing gravitational waves at sub-nanohertz frequencies****Speaker**

William De Rocco

**19:22-19:23****Potential for definitive discovery of a 70 GeV dark matter WIMP with only second-order gauge couplings****Speaker**

Roland Allen

**19:23-19:24****Searching for Light Dark Matter with Narrow-gap Semiconductors - the SPLENDOR Experiment****Speaker**

Samuel Watkins

**19:24-19:25****Searches of light dark matter and B8 neutrino events at PandaX-4T****Speaker**

Shuaijie Li

**19:25-19:26****The first Stars in the Universe as Dark Matter Laboratories****Speaker**

Cosmin Ilie

**19:26-19:27****Peering into the Gap: Learning about Dark Matter from the Pair Instability Mass Gap****Speaker**

Joshua Ziegler

**19:27-19:28****Kinetic Simulations of Collisionless Shock Formation in the Dark Sector****Speaker**

Pierce Giffin

**19:28-19:29****Analyzing High-Redshift Galaxy Candidates as Supermassive Dark Star Candidates with JWST Data****Speaker**

Jillian Paulin

**19:29-19:30****Probing Dark Matter with exoplanets****Speaker**

Caleb Levy

19:30-19:31

**Searching for High-Frequency Gravitational Waves with ABRACADABRA-10cm****Speaker**

Kaliroe Pappas

19:31-19:32

 **$\delta$ 8 Tension in the Context of Dark Matter-Baryon Scattering****Speaker**

Adam He

19:32-19:33

**Structure Formation and the Global 21-cm Signal in the Presence of Coulomb-like Dark Matter-Baryon Interactions****Speaker**

George Driskell

19:33-19:34

**Recent progress on BSM and dark matter searches in CUORE****Speaker**

Rebecca Kowalski

19:34-19:35

**Extremes in Mixing Angle Space: Constraining Sterile Neutrinos for the Next Generation of Searches****Speakers**

Cannon Vogel, Helena Garcia Escudero

19:35-19:36

**Core Collapse in Self-Interacting Dark Matter Halos****Speakers**

Maya Silverman, Sophia Gad-Nasr

19:36-19:37

**Corrections to Hawking Radiation from Asteroid Mass Primordial Black Holes: I. Formalism of Dissipative Interactions in Quantum Electrodynamics****Speaker**

Gabriel Vasquez

19:37-19:38

**New technologies for future direct detection LXe TPCs: a large-diameter test platform and hermetic TPC****Speaker**

Adam Brown

19:38-19:39

**Dark matter particle mass and properties from scaling laws in galaxy rotation curves and N-body simulations****Speaker**

Zhijie (Jay) Xu

20:00