

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**

Kalirae 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