



# CPAD Workshop 2022

## Tuesday, November 29, 2022

### WG4: Quantum and Superconducting Detectors - Theater (1:30 PM - 3:30 PM)

-Conveners: Cristián Peña; Michael Jewell

time	[id] title	presenter
1:30 PM	[158] Superconducting Nanowire Single Photon Detectors	SHAW, M . D
1:50 PM	[25] Quantum Capacitance Detectors with sub-eV resolution for astroparticle applications	RAMANATHAN, Karthik
2:10 PM	[78] The Quantum Capacitor Detector – counting single photons in the far-infrared	ECHTERNACH, P.M.
2:30 PM	[176] Superconducting Nanowire Single Photon Detectors for sub-GeV Dark Matter Searches	LUSKIN, J
2:50 PM	[166] Excess backgrounds in dark matter searches and superconducting photon detectors	PEREVERZEV, Sergey

# Wednesday, November 30, 2022

## **WG4: Quantum and Superconducting Detectors - Theater (8:30 AM - 10:10 AM)**

-Conveners: Michael Jewell; Cristián Peña

time	[id] title	presenter
8:30 AM	[74] Spectrometer based on SPAD linear array with sub-nanosecond timing resolution and single photon sensitivity for quantum-assisted optical interferometers.	NOMEROTSKI, Andrei
8:50 AM	[134] Novel Light-Field Imaging Device with Enhanced Light Collection for Cold Atom Clouds	CHEONG, Sanha
9:10 AM	[138] Highly-charged Ion Atomic Clock and Ultra-light Dark Matter	WORM, Steven
9:30 AM	[79] Quantum Entangled Network of Magnetometers	MARTINEZ-RINCON, Julian

## **WG4: Quantum and Superconducting Detectors - Lecture Hall 2 (1:35 PM - 3:35 PM)**

-Conveners: Julian Martinez-Rincon; Cristián Peña; Michael Jewell

time	[id] title	presenter
1:35 PM	[20] Stress Induced Backgrounds in Cryogenic Crystal Calorimeters	ROMANI, Roger
1:55 PM	[84] BREAD Gigahertz Pilot: A reflector-based search for the dark photon and the axion	HOSHINO, Gabriel
2:15 PM	[45] Leveraging Quantum Sensors for Dark Matter Detection	BAXTER, Daniel
2:35 PM	[152] Extending the Reach of Dielectric Haloscopes	KOPPELL, Stewart
2:55 PM	[37] Searching for axions and dark photons with superconducting nanowire single photon detectors (SNSPDs) in the BREAD experiment	WANG, Christina PEÑA, Cristián
3:15 PM	[50] Progress Towards HeRALD: The Helium Roton Apparatus for Light Dark Matter	PINCKNEY, Doug

# Thursday, December 1, 2022

## **WG4: Quantum and Superconducting Detectors - Lecture Hall 2 (10:35 AM - 12:35 PM)**

**-Conveners: Michael Jewell; Cristián Peña; Julian Martinez-Rincon**

time	[id] title	presenter
10:35 AM	[68] Transition edge sensor developments for the TESSERACT project	LI, Xinran
10:55 AM	[80] Measuring Quasiparticle Diffusion in Superconducting Al Films with a TES and Microscopic Laser-Scanning Technique	OSTERMAN, David
11:15 AM	[116] Results of a prototype TES detector for the Ricochet experiment	CHAPLINSKY, Luke
11:35 AM	[140] GeSiSn nano-structures for HEP and QIS detectors	Dr ZAJAC, Joanna CULTRERA, luca
11:55 AM	[119] Phonon-mediated kinetic inductance detectors for low mass dark matter searches	WEN, Osmond
12:15 PM	[142] Optimizing MKIDs for Future Millimeter Wavelength Cosmological Surveys	PAN, Zhaodi