## XVIII International Conference on Topics in Astroparticle and Underground Physics (TAUP 2023)

# Monday, 28 August 2023

## Dark matter and its detection: parallel session 1A - BIG-Hörsaal lecture hall (14:30 - 16:00)

## -Conveners: Felix Wagner

time	[id] title	presenter
14:30	[68] Searching for Light Dark Matter with Narrow-gap Semiconductors: the SPLENDOR Experiment	WATKINS, Samuel
14:45	[308] Status and prospects of the SuperCDMS Dark Matter experiment	Dr ZATSCHLER, Stefan
15:00	[309] Background simulations for the SuperCDMS experiment – Efficient GEANT4 simulations using Importance Biasing	Dr ZATSCHLER, Birgit
15:15	[326] Investigating Compton steps in SuperCDMS Si HVeV detectors	Mr DAS (FOR SUPERCDMS COLLABORATION), Sudipta
15:30	[559] Measurement of low-energy Compton and neutron scattering in Si CCDs with single-electron resolution	SMIDA, Radomir
15:45	[247] Oscura : Dark Matter search with 10 kg of skipper-CCD	Dr SAFFOLD, Nathan

## Dark matter and its detection: parallel session 1B - Hörsaal 3 lecture hall (14:30 - 16:00)

### -Conveners: Marco Regis

time	[id] title	presenter
	[525] Analytical models of dark matter subhalos for indirect dark matter searches	LAVALLE, Julien
	[487] Constraints on dark matter-neutrino scattering from the Milky-Way satellites and subhalo modeling for dark acoustic oscillations	Dr AKITA, Kensuke
15:00	[204] Could compact stars in Globular Clusters constrain dark matter?	REYNOSO CORDOVA, Javier Israel
15:15	[377] X-rays constraints on sub-GeV Dark Matter	KOECHLER, Jordan
15:30	[84] Effective field theories for dark matter pairs in the early universe	Mr QERIMI, Gramos
15:45	[528] Forging anti-helium in a dark matter crucible	MATHUR, Anubhav

## Dark matter and its detection: parallel session 2A - BIG-Hörsaal lecture hall (16:30 - 18:30)

#### -Conveners: Christopher McCabe

time [id] title	presenter
16:30 [174] Searching for axion dark matter with IBS-CAPP	YOUN, Sung Woo
16:45 [231] Searches of Axions/ALPS with (Baby)IAXO	Dr GARCIA, Juanan
17:00 [331] The search for low-mass axion dark matter with DMRadio	Dr SALEMI, Chiara
17:15 [335] Calibrating the DMRadio Axion Dark Matter Detectors	FRY, Jessica
17:30 [354] Science reach and electromagnetic modeling of DMRadio-m\$^3\$	RAPIDIS, Nicholas M.

17:45	[461] Status of the Quantum Sensors for the Hidden Sector (QSHS) Experiment	Prof. DAW, Ed
	[545] Studying Correlated Errors in Superconducting Qubits Underground in NEXUS	BRATRUD, Grace
18:15	[455] Radon emanation suppression by surface coating	Dr SIMGEN, Hardy

## Dark matter and its detection: parallel session 2B - Hörsaal 3 lecture hall (16:30 - 18:30)

## -Conveners: Tina Pollmann

time	[id] title	presenter
16:30	[129] Status of the LUX-ZEPLIN (LZ) Experiment	Dr BOXER, Billy
16:45	[139] The First WIMP results from XENONnT	XU, Zihao
17:00	[240] Recent dark matter search results of PandaX experiment	Prof. ZHOU, Ning
17:15	[188] Search for solar neutrino and light dark matter in the PandaX-4T experiment	LIN, Qing
17:30	[65] Effective Field Theory Dark Matter Searches with the LZ Detector	WILLIAMS, Michael
17:45	[490] First observation of single photons in a CRESST detector and new Dark Matter exclusion limits	FUCHS, Dominik Raphael
18:00	[206] Density-functional theory description of xenon for light dark matter direct detection	MARIN, Luca
	[370] Dark Matter Data Center: A Unified Platform for Data and Information Sharing Within the Dark Matter Community	Dr BANERJEE, Heerak

## Tuesday, 29 August 2023

## Dark matter and its detection: parallel session 3A - BIG-Hörsaal lecture hall (14:00 - 15:30)

#### -Conveners: Valentyna Mokina

time	[id] title	presenter
	[580] MAGNETO- $\chi$ : Sub-GeV Dark Matter Detection using Diamond and Magnetic Sensors	KIM, Geon-Bo
14:15	[195] Sub-GeV Dark Matter Searches with EDELWEISS and CRYOSEL	Mrs GUY, Elsa
	[551] Recent progress in the search for light WIMP-like particles in southern Argentina at the DMSQUARE experiment	AVALOS, Nicolás
14:45	[572] remoTES: A novel cryogenic detector for rare-event searches	RAGHUNATH BHARADWAJ, Mukund
	[502] Background modeling and simulation of calibration source for the dark matter search experiment CRESST	Dr BANIK, Samir
15:15	[444] Extension of the Geant4 based Electromagnetic Background Model of CRESST-II and CRESST-III	BURKHART, Jens

## Dark matter and its detection: parallel session 3B - Hörsaal 3 lecture hall (14:00 - 15:30)

#### -Conveners: Phillip Urquijo

time [id] title	presenter
14:00 [77] Searches for Dark Matter with the ATLAS Experiment at the LHC	HABEDANK, Martin
14:15 [434] Search for Dark Matter with mono-X Signatures in CMS	Mr ACHARYA, Shriniketan
14:30 [261] Physics Beyond the Standard Model with the NA62 experiment at CERN	ROSA, Ilaria
14:45 [433] Hidden sector searches in CMS	WULZ, Claudia
15:00 [78] Non-WIMP dark matter searches with the ATLAS detector	KRAMER, Peter
15:15 [351] Recent results from the Belle II experiment	PAOLONI, Eugenio

### Dark matter and its detection: parallel session 4A - BIG-Hörsaal lecture hall (16:00 - 18:00)

#### -Conveners: Scott Hertel

time	[id] title	presenter
16:00	[516] Planning the future DARWIN/XLZD observatory - WIMP sensitivity goals and detector R&D	Dr POLLMANN, Tina
16:15	[56] Status and prospects of DarkSide-20k: a direct dark matter search experiment using liquid argon	Prof. WANG, Yi
16:30	[4] The DARKSIDE-20k veto readout system: PDUs construction and characterization	SANTONE, Daria
16:45	[63] Search for annual modulation of the event rate generated by dark matter in the DarkSide-50 ionization signal	Mr HUGUES, Theo
17:00	[235] DarkSide-LowMass: Sensitivity Projections for a New Detector Designed for Light Dark Matter Searches	Dr WADA, Masayuki
17:15	[85] Measurement of the underground argon radiopurity for Dark Matter direct searches	LUZZI, Ludovico

## 17:30 [57] Characterization of low-energy argon recoils with the ReD experiment PAN

PANDOLA, Luciano

### Dark matter and its detection: parallel session 4B - Hörsaal 3 lecture hall (16:00 - 18:00)

#### -Conveners: Sebastian Baum

time	[id] title	presenter
	[108] Spin-1 Thermal Targets for Dark Matter Searches at Fixed Target Experiments	GRAY, Taylor
16:15	[112] The Light Dark Matter eXperiment (LDMX)	BRYNGEMARK, Lene Kristian
16:30	[409] Muon $(g-2)$ and Thermal WIMP DM in $U(1)_{L_wu - L_tau} Models$	Dr KIM, Jongkuk
	[208] Towards the first axion search results of the Any Light Particle Search II experiment	Dr WEI, Li-Wei
17:00	[166] New Evidence for DM-like Anomalies in neutron multiplicity spectra	TRZASKA, Wladyslaw Henryk
17:15	[494] Antiprotonic atoms as gateways for dark matter	KORNAKOV, Georgy

# Wednesday, 30 August 2023

## Dark matter and its detection: parallel session 5A - BIG-Hörsaal lecture hall (14:00 - 15:30)

#### -Conveners: Phillip Urquijo

time	[id] title	presenter
14:00	[495] Latest results and updates from the COSINUS experiment	ZEMA, Vanessa
14:15	[463] Status and prospects of SABRE North and South	D'IMPERIO, Giulia
14:30	[109] Neutron calibrations in dark matter searches: the ANAIS-112 case	Mrs PARDO YANGUAS, Tamara
	[150] Quenching factor measurement of low-energy Na recoils in ultra-pure Nal(TI) crystal	Mr URANO, Yusuke
15:00	[243] Measurements of quenching factors for NaI(TI) scintillating crystal	Dr KIM, Kyungwon
	[541] Exploring the Impact of TI Dopant Concentration on the Measurement of Quenching Factor in Nal Crystals	Ms MAJI, Rituparna

## Dark matter and its detection: parallel session 5B - Hörsaal 3 lecture hall (14:00 - 15:30)

-Con	-Conveners: Marco Taoso		
time	[id] title	presenter	
14:00	[71] The self-confinement of electrons and positrons from dark matter	Prof. REGIS, Marco	
14:15	[464] A Radio Telescope Search For Dark Matter in the L- and S- Bands	KELLER, Aya	
14:30	[100] Probing the Blue Axion with Cosmic Optical Background Anisotropies	LUCENTE, Giuseppe	
	[501] Commissioning and the first observation of ISAI, Investigating Solar Axion by Iron-57, experiment	ONUKI, Yoshiyuki	
15:00	[120] Axion Clumps Meeting Neutron Stars	BAUM, Sebastian	
15:15	[143] Primordial Black Hole as Dark matter with gamma-ray emissions	TAN, Xiu-hui	

## Dark matter and its detection: parallel session 6A - BIG-Hörsaal lecture hall (16:30 - 18:30)

## -Conveners: Ning Zhou

time	[id] title	presenter
	[140] Experimental search for the Migdal effect with keV-level xenon nuclear recoils	Dr XU, Jingke
	[159] Results from the MIGDAL experiment's commissioning using fast neutrons from a D-D generator.	Dr MAJEWSKI, Pawel
	[350] The Windchime Project: Towards the Gravitational Detection of Dark Matter	LI, Shengchao
	[482] Riding Dark Matter Waves at Windchime: Probing Ultralight Dark Photon Dark Matter with Optomechanical Sensors	AMARAL, Dorian
17:30	[538] Dark matter searches with AION-10, and beyond	Dr MCCABE, Christopher
	[271] KDK: First measurement of the potassium-40 ground state electron capture for backgrounds in rare-event searches	Dr STUKEL, Matthew Jake

## Dark matter and its detection: parallel session 6B - Hörsaal 3 lecture hall (16:30 - 18:30)

-Conveners: Riccardo Catena		
time	[id] title	presenter
16:30	[98] Latest results from the NEWS-G dark matter experiment	COQUILLAT, Jean-Marie
16:45	[452] Direct Dark Matter search with the CRESST-III experiment: Status and Prospects	KAZNACHEEVA, Margarita
17:00	[160] Latest results from the DEAP-3600 experiment at SNOLAB	VIEL, Simon
17:15	[407] PICO-40L Bubble Chamber Status and First Results	MOORE, Colin
17:30	[172] Superfluid Optomechanics for dark matter direct detection	Dr COX, Peter
17:45	[101] Detecting Dark Matter Induced Power in Quantum Devices	Dr DAS, Anirban
18:00	[489] Atomic Response Functions for Light Dark Matter Direct Searches	Prof. LIU, Cheng-Pang

## Thursday, 31 August 2023

## Dark matter and its detection: parallel session 7A - BIG-Hörsaal lecture hall (14:00 - 15:30)

#### -Conveners: Matthew Jake Stukel

time	[id] title	presenter
14:00	[39] NEWSdm : directional dark matter searches with nuclear emulsion	TIOUKOV, Valeri
14:15	[113] NEWAGE: direction-sensitive direct dark matter search	HIGASHINO, Satoshi
14:30	[345] The CYGNUS project	Dr BIGNELL, Lindsey
14:45	[443] The CYGNO project for directional Dark Matter searches	MESSINA, Andrea
15:00	[565] The DarkNESS mission: probing dark matter with a skipper-CCD CubeSat	Dr SAFFOLD, Nathan

#### Dark matter and its detection: parallel session 7B - Hörsaal 3 lecture hall (14:00 - 15:30)

#### -Conveners: Simon Viel

time	[id] title	presenter
14:00	[404] Modelling dark matter-electron interactions in materials	CATENA, Riccardo
14:15	[76] Chiral phonons as dark matter detectors	MATAS, Marek
	[161] A novel approach for the direct detection of light Dark Matter in Double Beta decay experiments	NOZZOLI, Francesco
	[322] Latest results from the SENSEI experiment on sub-GeV dark matter searches	BOTTI, Ana Martina
15:00	[558] The DAMIC-M experiment: status and first results	Prof. PRIVITERA, Paolo
	[286] Confirmation of the excess of ionization events in DAMIC at SNOLAB with skipper CCDs	Dr TRAINA, Michelangelo

### Dark matter and its detection: parallel session 8A - BIG-Hörsaal lecture hall (16:00 - 18:00)

#### -Conveners: Karoline Julia Schaeffner

time	[id] title	presenter
16:00	[73] QUEST-DMC: Low Mass Dark Matter Search with Helium-3	Dr LEASON, Elizabeth
16:15	[583] SPICE: A Search for Light (MeV - GeV) Dark Matter Using Polar Crystal Calorimeters	ROMANI, Roger
16:30	[581] Progress Toward a Superfluid 4He Detector for Light Dark Matter (HeRALD)	Prof. HERTEL, Scott
16:45	[458] Developing Qubit-Based Detectors for Low-Threshold Dark Matter Searches at Fermilab	LINEHAN, ryan
17:00	[203] Latest results from BULLKID	VIGNATI, Marco
17:15	[387] DELight: Direct Search Experiment for Light Dark Matter with Superfluid Helium	TOSCHI, Francesco
17:30	[137] EXCESS workshop: a community effort towards understanding low energy excesses	BAXTER, Daniel WAGNER, Felix

## Dark matter and its detection: parallel session 8B - Hörsaal 3 lecture hall (16:00 - 18:00)

XVIII International Conference on Topics in Astroparticle and Underground Physics (TAUP 2023) / Programme

-Conveners:	Victoria	Wagner
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time	[id] title	presenter
16:00	[142] Status of the COSINE-100 experiment	Dr LEE, Hyun Su
16:15	[236] ANAIS–112: updated results on annual modulation with three-year exposure	COARASA CASAS, Iván
16:30	[531] Recent status and prospects of CDEX dark matter search at CJPL	Dr YANG, Litao
16:45	[553] Earth-Scattering Induced Modulation in Low-Threshold Dark Matter Experiments	BERTOU, Xavier
17:00	[124] Paleo-Detectors & Friends: Mineral Detection of Neutrinos and Dark Matter	BAUM, Sebastian
17:15	[330] Current Status and Future Plans of the Axion Dark Matter eXperiment	Dr OBLATH, Noah
17:30	[260] How to detect a QCD axion with MADMAX: Introduction and first physics results	MALDONADO, Juan PA
17:45	[171] A search for \$^7\$Li solar axions with Li\$_2\$MoO\$_4\$ detectors in the AMoRE experiment	SEO, Jeewon