Session Program

Aug 24 – 30, 2025

The XIX International Conference on Topics in Astroparticle and Underground Physics (TAUP2025)

Dark Matter and Its Detection

Xichang Qionghai Hotel
Xichang, Sichuan, China

Mon, August 25

2:00 PM

Dark Matter and Its Detection: parallel session 1A

Session | **Location:** Conference Room F2-R1 | **Convener:** Ning Zhou

2:00 – 2:20 PM **WIMP results from XENONnT with 3.1 tonne × year of exposure**

Speaker
Maxime Pierre

2:20 – 2:40 PM **Results from and Status of the LUX-ZEPLIN Experiment**

Speaker
Amy Cottle

2:40 – 3:00 PM **Search for light dark matter with PandaX-4T**

Speaker
minzhen zhang

3:00 – 3:20 PM **XLZD status**

Speaker
Masaki Yamashita

3:20 – 3:40 PM **Science prospects of the XLZD experiment**

Speaker
Knut Dundas Morå

3:40 PM

2:00 PM

Dark Matter and Its Detection: parallel session 1B

Session | **Location:** Conference Room F2-R2 | **Convener:** Tony Noble

2:00 – 2:20 PM **Dark Photon Dark Matter Detection with Radio Telescopes**

Speaker
Jia Liu

2:20 – 2:40 PM **Detecting Axion-like Particles: Long-Lived Particles and Dark Matter**

Speaker
Yue-Lin Sming Tsai

2:40 – 3:00 PM **Dark photons and axion-like particles at the Electron-Ion Collider**

Speaker
Teng Ma

3:00 – 3:20 PM **Getting the most on SN axions**

Speaker
Alessandro Lella

3:20 – 3:40 PM **Beyond the simplest strongly interacting dark matter**

Speaker
xiaoyong chu

3:40 PM

4:00 PM

Dark Matter and Its Detection: parallel session 2A

Session | **Location:** Conference Room F2-R1 | **Convener:** Roberto Santorelli

4:00 – 4:20 PM

General overview of the DarkSide-20k experiemnt at LNGS: status and goals

Speaker
Walter Bonivento

4:20 – 4:40 PM

Dark Matter Search in DEAP-3600: Recent Results and Future Prospects

Speaker
Shawn Westerdale

4:40 – 5:00 PM

ALETHEIA: Hunting for low-mass dark matter with liquid helium-filled TPCs

Speaker
Liao Junhui

5:00 – 5:20 PM

The SABRE South Experiment at the Stawell Underground Physics Laboratory

Speaker
Suerfu Burkhant

5:20 – 5:40 PM

The SABRE North project at Gran Sasso Laboratory

Speaker
Krzysztof Szczepaniec

5:40 – 6:00 PM

Recent Results from the COSINE-100 Experiment

Speaker
Insoo Lee

6:00 – 6:20 PM

Strong Constraints on the DAMA/LIBRA Modulation Signal from ANAIS-112

Speaker
Maria Martinez

6:20 PM

4:00 PM

Dark Matter and Its Detection: parallel session 2B

Session | **Location:** Conference Room F2-R2 | **Convener:** wei chao

4:00 – 4:20 PM

Constraints on Strongly-Interacting Dark Matter from the James Webb Space Telescope

Speaker
Peizhi Du

4:20 – 4:40 PM

Illuminating Very Heavy Dark Matter in the Earth with Tau Neutrinos

Speaker
Qinrui Liu

4:40 – 5:00 PM

Boosted dark matter from semi-annihilations in the galactic center

Speaker
Takashi Toma

5:00 – 5:20 PM **Probing MeV Dark Matter Via Solar Reflection**

Speaker
Mr Haoming Nie

5:20 – 5:40 PM **Boosted Dark Matter Directionality in Large Liquid Scintillators**

Speaker
Mr Samuel S.H. Tse

5:40 – 6:00 PM
Many-body atomic response functions for sub-GeV dark matter-electron interactions

Speaker
Prof. Cheng-Pang Liu

6:00 PM

Tue, August 26

2:00 PM

Dark Matter and Its Detection: parallel session 3A

Session | **Location:** Conference Room F2-R1 | **Convener:** Ziqing Hong

2:00 – 2:20 PM **The SuperCDMS SNOLAB experiment**

Speaker
Dr Emanuele Michielin

2:20 – 2:40 PM **Towards the deployment of DAMIC-M: status and latest results**

Speaker
Michelangelo Traina

2:40 – 3:00 PM **Search for light dark matter with CRESST-III**

Speaker
Carlo Bucci

3:00 – 3:20 PM
Scientific Prospects and Technical Innovations in the CDEX-50 Experiment

Speaker
Shin Ted Lin

3:20 – 3:40 PM
The Direct Search Experiment for Light Dark Matter (DELight): Overview and Perspectives

Speaker
Melih Solmaz

3:40 PM

2:00 PM

Dark Matter and Its Detection: parallel session 3B

Session | **Location:** Conference Room F2-R2 | **Convener:** Yongcheng Wu

2:00 – 2:20 PM **SUSY Dark Matter at the LHC?!**

Speaker
Sven Heinemeyer

2:20 – 2:40 PM
A Unified Framework for Dwarf Galaxy Cores and Cluster Substructure Cusps via Self-Interacting Dark Matter with Mass Segregation

Speaker
Daneng Yang

2:40 – 3:00 PM
Lensing signatures of self-interacting dark matter halos: an analytic approach

Speaker
Siyuan Hou

3:00 – 3:20 PM **3-Dimensional WIMP Effective Velocity Distribution**

Speaker
Chung-Lin SHAN

3:20 – 3:40 PM
Charged lepton flavor violating light Dark Matter and muonium invisible decay

Speaker
Sahabub Jahedi

3:40 PM

4:00 PM

Dark Matter and Its Detection: parallel session 4A

Session | **Location:** Conference Room F2-R1 | **Convener:** Shin Ted Lin

4:00 – 4:20 PM
Search of light Dark Matter with TESSERACT experiment at Laboratoire Souterrain de Modane

Speaker
Paul Vittaz

4:20 – 4:40 PM **The PICO-40L Dark Matter Search**

Speaker
William Woodley

4:40 – 5:00 PM
The CYGNO experiment, a Gaseous TPC for directional Dark Matter searches

Speaker
Davide Fiorina

5:00 – 5:20 PM **Overview of the Axion Dark Matter eXperiment**

Speaker
Dan Zhang

5:20 – 5:40 PM
The MADMAX experiment: First dark matter constraints and the road ahead

Speaker
Juan Pablo Arcila Maldonado

5:40 – 6:00 PM
Background simulation for the dark matter search experiment CRESST

Speaker
Valentyna Mokina

6:00 – 6:20 PM
Investigating Ultra-Low Energy Ionization Yield from Nuclear Recoils in Semiconductor Detectors via Molecular Dynamics Simulations

Speaker
Mr Chang-Hao Fang

6:20 PM

Wed, August 27

2:00 PM

Dark Matter and Its Detection: parallel session 5A

Session | **Location:** Conference Room F2-R1 | **Convener:** Yi Wang

2:00 – 2:20 PM

Searches for Light Dark Matter with DarkSide-20k and DarkSide-LowMass

Speaker
Masayuki Wada

2:20 – 2:40 PM

BULLKID-DM: searching for light WIMP with monolithic arrays of detectors

Speaker
Matteo Folcarelli

3:00 – 3:20 PM

DAREDEVIL

Speaker
andrea Melchiorre

3:20 – 3:40 PM

Search for Dark Sector Particles at a Nuclear Reactor from the NEON Experiment

Speaker
Hyunsu Lee

3:40 PM

2:00 PM

Dark Matter and Its Detection: parallel session 5B

Session | **Location:** Conference Room F2-R2 | **Convener:** Xiaojun Bi

2:00 – 2:20 PM

IceCube’s Sensitivity Prospects to MeV-Scale Axion-Like Particles from Core-Collapse Supernovae

Speaker
Nora Valtonen-Mattila

2:40 – 3:00 PM

Search for Dark Matter spectral lines around the Galactic Centre with CTAO LST-1

Speaker
Tomohiro Inada

3:00 – 3:20 PM

Understanding the Origin of Cosmic-Ray Electrons and Positrons

Speaker
Shanglin Li

3:20 – 3:40 PM

Search for Cosmic-Ray Antinuclei from Dark Matter with the GAPS Antarctic Balloon Mission

Speaker
Prof. Mengjiao Xiao

3:40 PM

4:00 PM

Dark Matter and Its Detection: parallel session 6A

Session | **Location:** Conference Room F2-R1 | **Convener:** Masaki Yamashita

4:00 – 4:20 PM **Search for Light Dark Matter with XENONnT**

Speaker
Shenyang Shi

4:20 – 4:40 PM **Sub-keV dark photon search with S2-only data in PandaX4T**

Speaker
Dr Shuaijie Li

4:40 – 5:00 PM
Search for new physics in low energy electron recoil signals in LZ WS2022+2024 combined dataset

Speaker
YONGHENG XU

5:00 – 5:20 PM
Searching for MeV-scale Axion-like Particles and Dark Photons with PandaX-4T

Speaker
Tao Li

5:20 – 5:40 PM **Search for axions and other new physics signals with PandaX-4T**

Speaker
xiaopeng Zhou

5:40 – 6:00 PM
First Search for Ultralight Dark Matter Using a Magnetically Levitated Particle

Speaker
Chris Tunnell

6:00 – 6:20 PM **Search for Dark Matter with Levitated Ferromagnetic Spin Sensor**

Speaker
Wei Ji

6:20 PM

4:00 PM

Dark Matter and Its Detection: parallel session 6B

Session | **Location:** Conference Room F2-R2 | **Convener:** Kenny Chun Yu Ng

4:00 – 4:20 PM **Progress of the COSINE-100U experiment**

Speaker
Doohyeok Lee

4:20 – 4:40 PM
Advanced NaI detectors for Dark Matter search and other applications: the ANAIS+ project

Speaker
Maria Martinez

4:40 – 5:00 PM
Dark matter annual modulation analysis with combined nuclear and electron recoil channels

Speaker
Dr Manoj Kumar Singh

5:00 – 5:20 PM

First cryogenic SiPM readout of a NaI(Tl)-based dark matter detector with the ASTAROTH project

Speaker
Davide D'Angelo

5:20 – 5:40 PM

Pulse Shape Discrimination Measurement of CsI(Tl) Scintillator with Green-Extended Photocathode PMTs

Speaker
Sedong Park

5:40 – 6:00 PM

Scintillation Characteristics of an Undoped CsI Crystal with SiPM Readout for Dark Matter Detection

Speaker
Wonkyung Kim

6:00 – 6:20 PM

The event discrimination in the bulk region of the point-contact germanium detector

Speaker
Renmingjie Li

6:20 PM

Thu, August 28

2:00 PM

Dark Matter and Its Detection: parallel session 7B

Session | **Location:** Conference Room F2-R2 | **Convener:** Masayuki Wada

2:00 – 2:20 PM **First Direct Observation of Migdal Effect in Neutral Projectiles**

Speaker
Difan Yi

2:20 – 2:40 PM
Characterization of argon recoils at the keV scale with ReD and ReD+

Speaker
Luciano Pandola

2:40 – 3:00 PM
Determination of the sensitivity of the DEAP-3600 experiment to supermassive charged gravitinos

Speaker
Michal Olszewski

3:00 – 3:20 PM **Electronic Recoils in Xenon Detectors Induced by Solar Neutrinos**

Speaker
CHIH-PAN WU

3:20 – 3:40 PM
First observation of positron emission decay of Xe-125 in a noble liquid detector from the LUX-ZEPLIN Experiment

Speaker
Miguel Hernandez

3:40 PM

4:00 PM

Dark Matter and Its Detection: parallel session 8B

Session | **Location:** Conference Room F2-R2 | **Convener:** Junhui Liao

4:00 – 4:20 PM
Search for Dark Matter ALPs Through Photon Couplings in Atomic Systems

Speaker
Ms Greeshma Chandrabhanu

4:20 – 4:40 PM
Cryogenic Underground TEst facility at SNOLAB: Infrastructure and Latest Results

Speaker
Ziqing Hong

4:40 – 5:00 PM **Status and Prospects of Kamioka Cryolab**

Speaker
Suerfu Burkhant

5:00 – 5:20 PM **A Tonne-scale Demonstrator of The DarkSide-20k Inner Detector**

Speaker
Ako Jamil

5:20 – 5:40 PM **Veto Development for the PandaX Experiment**

Speaker
Junting Huang

5:40 – 6:00 PM
Spectral Features of Argon Light Emission for Next-Generation Rare Event Detectors

Speaker
Roberto Santorelli

6:00 – 6:20 PM **Low-energy Yttrium-Beryllium calibration in XENONnT**

Speaker
Shengchao Li

6:20 PM