

## **Session Program**

**24-30 Aug 2025**

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

## ***Poster session***

Xichang Qionghai Hotel  
Xichang, Sichuan, China

# Wednesday 27 August

18:00

## Poster session

**Session** | **Location:** International Conference Center

18:00–20:00 **Study of Ionization Channel Signals for Dual-Phase Argon TPC**

**Speaker**

YiKe Shu

18:00–20:00

**Gd-PMMA: a novel neutron tagging technology for low background detectors.**

**Speaker**

Lei Chen

18:00–20:00

**AXEL: development of a high-voltage distribution system and low-mass field cage for construction of a next large detector**

**Speaker**

Hayato SASAKI

18:00–20:00

**JUNO as 2 MeV Water Cherenkov Detector**

**Speaker**

Dian Li

18:00–20:00

**Characterization and simulation of the low background GAGG neutron detector**

**Speaker**

Yingjie Chu

18:00–20:00

**Neganov-Trofimov-Luke light detectors in 0νbb experiments**

**Speaker**

Hawraa Khalife

18:00–20:00

**CERES: Cryogenic Experiment to Reconstruct Energy Systematics in TeO<sub>2</sub> bolometers**

**Speaker**

Tong Zhu

18:00–20:00

**Theoretical Constraints and Their Implications for Neutrinoless Double- $\beta$  Decay Probes**

**Speaker**

Dr Manoj Kumar Singh

18:00–20:00

**Measurement of the branching ratio of <sup>16</sup>N, <sup>15</sup>C, and <sup>12</sup>B isotopes through the nuclear muon capture reaction in the Super-Kamiokande detector**

**Speaker**

Yuto Maekawa

18:00–20:00

**AXEL Experiment: Research and Development of a Novel Xenon Gas Scintillation Detector****Speaker**

Soki Urano

18:00–20:00

**Core-Collapse Supernova monitor study during the JUNO filling phase****Speaker**

YIXUAN JIANG

18:00–20:00

**Study on XY Position Reconstruction in DArTPC with Au Dots Calibration****Speaker**

Jilong Yin

18:00–20:00

**Investigation of neutron background and the effect on dark matter search with a spherical proportional counter****Speaker**

Mr Motlatsi Vincent Mahanyapane

18:00–20:00

**Neutrino-Oxygen interaction measurement at the Supernova neutrino energy regime with Spallation Neutron Source in Oak Ridge National Laboratory****Speaker**

Masayuki Harada

18:00–20:00

**Validating NCQE interaction observables with T2K beam data for DSNB search in Super-Kamiokande****Speaker**

Licheng FENG

18:00–20:00

**The XENONnT Neutron Veto****Speaker**

Masashi Yoshida

18:00–20:00

**NEWAGE: Status of underground direction-sensitive dark matter search with low-background gaseous TPC****Speaker**

Ryota Namai

18:00–20:00

**Modeling of Low Temperature and Low Noise Devices****Speaker**

Prof. 仲茂 李

18:00–20:00

**Low-Threshold Analysis for Low-Mass WIMP Search with COSINE-100****Speaker**

Wonkyung Kim

**18:00–20:00 Characterization of Liquid Scintillator at Cryogenic Temperatures****Speakers**

曹 予 又 黄, 培源 李, 志 李, 玄 傅

18:00–20:00

**Production of ultra-low-background NaI(Tl) crystals for the SABRE experiment****Speaker**

Krzysztof Szczepaniec

18:00–20:00

**Ultra-Low background germanium spectrometers at the China Jinping Underground Laboratory****Speaker**

Jikai Chen

18:00–20:00

**Radon Reduction Strategies and Detection Techniques for Ultra-Clear Liquid Nitrogen in the CDEX Experiment****Speaker**

Qianyun Li

18:00–20:00

**Integrate Sensor for Spherical Proportional Counter****Speaker**

Dr Ali DASTGHEIBI FARD

18:00–20:00

**Purity control and measurement in liquid xenon detectors****Speaker**

景凡 谷

18:00–20:00

**Kr85 Background Estimation for Solar pp Neutrino Measurement in XENONnT****Speaker**

Yoshino Kaminaga

18:00–20:00

**Performance Validation of the VSTT: An Upgraded CUPID Prototype Tower with Neganov-Luke Enhanced Light Detectors****Speaker**

Irene Nutini

18:00–20:00

**Helium Recycling System For SuperNEMO****Speaker**

Penghui Li

18:00–20:00

**On the detection strategy of inclined air showers induced by ultra-high-energy particles****Speaker**

Dr Chao Zhang

18:00–20:00

**An interpretation involving ALPs in the TeV spectrum of GRB 221009A**

**Speaker**

P. H. Thomas Tam

18:00–20:00

**Unveiling the nature of the knee in the cosmic ray energy spectrum with LHAASO results****Speaker**

Qin-Yi Cheng

18:00–20:00

**Using LHAASO to Search for Ultra-High Energy Gamma-Ray Radiation Enhancement During Crab Nebula Flaring State****Speaker**

junyang zhang

18:00–20:00

**EBL study with HAWC observations of high-emission states of Mrk 421****Speaker**

Ramiro Torres Escobedo

18:00–20:00

**High energy multi-messenger signals from symbiotic novae****Speaker**

Prantik Sarmah

18:00–20:00

**Cosmic-ray sun shadow observation beyond TeV with LHAASO****Speaker**

Houdi Xing

18:00–20:00

**Simulation and Design of a Water Cherenkov Veto for the PandaX-xT Experiment****Speaker**

Yuxin Tian

18:00–20:00

**Water Cherenkov Veto for the PandaX-4T Experiment****Speakers**

予 叉 黄, 培源 李, 建琴 , 曼娜 , 熙元 邵, 裕杰 葛

18:00–20:00

**Diagnosing the origin of dense circumstellar material in a multi-energy neutrino astronomical approach****Speaker**

Yosuke Ashida

18:00–20:00

**Progress on the Readout Electronics and Data Acquisition System for the NuDEx-100 Experiment****Speakers**

Lei Lang, Kai Chen, Chaosong Gao

18:00–20:00

**Performance Evaluation of a New Sensor for the T2K Muon Monitor in Neutrino Beam Direction Measurements**

**Speaker**

Yukine Sato

18:00–20:00

**Status of the development of the water tank Instrumentation of LEGEND1000****Speaker**

Tobias Sterr

18:00–20:00

**Background Modeling of AMoRE-I****Speaker**

Mr B. Bhandari

18:00–20:00

**Development and characterization of the JNE concentrator****Speaker**

Shuai Ouyang

18:00–20:00

**Muon-induced backgrounds in the AMoRE-II underground detector****Speaker**

Jeewon Seo

18:00–20:00

**Development of a spring-mass vibration damping system for a Jinping bolometric demonstrator experiment****Speaker**

Huaqi Cao

18:00–20:00

**Study of delayed electron background in liquid and gaseous xenon detectors****Speaker**

Yang Lei

18:00–20:00

**Combined search for cosmic neutrino sources with ANTARES and KM3NeT/ARCA****Speaker**

Vittorio Parisi

18:00–20:00

**Plastic scintillator cosmic ray anti-coincidence system in RECODE experiment****Speakers**

Mr Enyi Xie, Ms Xiaoxue Yan, Yantao Wang

18:00–20:00

**Research of large balloon production for KamLAND2****Speaker**

Natsu Obata

18:00–20:00

**Recent R&D Progress Towards a Bolometric  $0\nu\beta\beta$  Experiment at China Jinping Underground Laboratory****Speakers**

Keyu Shang, 芳

18:00–20:00

**Background rejection by Pulse Shape Discrimination in the LEGEND experiment**

**Speaker**

Raoul Cesarano

18:00–20:00

**Study of cryogenic light detector based on germanium for heat-light double readout bolometers****Speaker**

Mr Deyong Duan

18:00–20:00

**Development of Neutron Transmutation Doped Ge (NTD-Ge) sensors for cryogenic bolometers****Speaker**

Mr Deyong Duan

18:00–20:00

**Sensitivity of search for double beta decay of  $^{130}\text{Te}$  to excited daughter state in CUORE****Speaker**

Ridge Liu

18:00–20:00

**Design and preliminary Test Results of a prototype LAr veto System for the CDEX-300  $0\nu\beta\beta$  Experiment****Speaker**

Yisen Lan

18:00–20:00

**CDEX-300  $\nu$  background simulation****Speaker**

Junzheng Wang

18:00–20:00

**Calibration system of the JUNO experiment****Speaker**

Rui Li

18:00–20:00

**SDDs for the measurement of forbidden  $\beta$  spectra of interest to astroparticle physics****Speaker**

Andrea Nava

18:00–20:00

**Calibration of 20-inch Photomultiplier Tubes in JUNO****Speaker**

Yaoguang Wang

18:00–20:00

**Development of a Multi-Purpose Optical TPC for Neutron-Induced Reaction Studies at SARAF****Speaker**

Dr Ryan Felkai

18:00–20:00

**Design and Development of an Electron Lifetime Monitor for Future Noble Element Experiments**

**Speaker**

GaoShuang Li

18:00–20:00

**Cherenkov light separation in organic liquid scintillator for neutrino detection****Speaker**

Marco Beretta

18:00–20:00

**Neutrino Detector Response Modeling with Several Advanced Machine Learning and Statistical Methods****Speaker**

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18:00–20:00

**Results from the DsTau(NA65) experiment at the CERN-SPS****Speaker**

Ali Murat Guler

18:00–20:00

**Extending the sensitivity of heavy sterile neutrino searches with solar neutrino experiments****Speaker**

Yutao Zhu

18:00–20:00

**Simulation study for the  $N\nu$ DEX Experiment: A Search for Neutrinoless Double Beta Decay of Se-82 Using a High-Pressure Gas TPC****Speaker**

tianyuan liang

18:00–20:00

**Unlocking the keV frontier: low-energy physics with the CUORE experiment****Speaker**

Alberto Ressa

18:00–20:00

**Reducing Systematic Uncertainties in Neutrino Detection with the Water Cherenkov Test Experiment (WCTE)****Speaker**

Laurence Cook

18:00–20:00

**Neutron Capture Information in Improving IBD Angular Resolution****Speaker**

Qishan LIU

18:00–20:00

**A research of proto-neutron star evolution and the structure near the surface****Speaker**

Jinkun Liao

18:00–20:00

**Vertex reconstruction of shower muons in Larger Liquid Scintillator Detectors using PMT waveforms**

**Speaker**

峻 力

18:00–20:00

**MeV-scale event-by-event direction reconstruction with Jinping 1-ton slow liquid scintillator prototype****Speaker**

Yutao Zhu

18:00–20:00

**Developing a supernova neutrino burst trigger at DUNE****Speaker**

Sophie Butchart

18:00–20:00

**Low Noise Readout ASICs for Astroparticle Physics Research****Speaker**

Ke WANG

18:00–20:00

**The accelerated Reactor fitter and Oscillation analysis for JUNO****Speaker**

Jingqin Xue

18:00–20:00

**Wave Front Sensing demodulated with the difference frequency of two phase modulated sidebands in a gravitational wave detector****Speaker**

CHIAKI HIROSE

18:00–20:00

**High Speed 5GSps Pulse Shape Digitization Prototype Based on RFSoc****Speaker**

Zhenxue Bian

18:00–20:00

**Development of Real-Time Pulse Processing IP Based on FPGA****Speaker**

Binkai Qi

18:00–20:00

**Design of RFSoc Based Hardware Module for Electronics System of Frontier Physics Experiments.****Speaker**

Mr Liangjun Wei

18:00–20:00

**Preliminary Design of Multi Channels High Precision Measurement Electronics System for CJPL****Speaker**

Bo Liang

18:00–20:00

**A Likelihood-Based Framework for CEvNS Analysis Using Reactor Rate Modulation****Speaker**

Elisabetta Bossio

18:00–20:00

**Observation of solar radio bursts in the Radio Neutrino Observatory Greenland (RNO-G)****Speaker**

Maria Mikhailova

18:00–20:00

**A new tellurium-loaded liquid scintillator based on water and p-dioxane****Speaker**

Ye Liang

18:00–20:00

**Study of the influence of mirror birefringence effect on KAGRA****Speaker**

Dr Haoyu Wang

18:00–20:00

**LZ & XLZD Low-E ER Sensitivity Projections****Speaker**

Huan Zhang

18:00–20:00

**Energy calibration of the BULLKID-DM experiment****Speaker**

Matteo Folcarelli

18:00–20:00

**Can KM3-230213A be dark matter?****Speaker**

Prantik Sarmah

18:00–20:00

**Performance Study of Orthogonal-Strip Planar HPGe Detectors for  $^{76}\text{Ge}$  Neutrinoless Double-Beta Decay Searching****Speaker**

Qiuli Zhang

18:00–20:00

**Advancing Muon Veto Systems for the Future ANDES Underground Laboratory****Speakers**

Dr Alberto Etchegoyen, Prof. Manuel Platino

19:40–20:00

**Laser isotope separation of  $^{48}\text{Ca}$  for the study of neutrinoless double beta decay and the CANDLES project****Speaker**

Prof. Izumi OGAWA

20:00