

## **Session Program**

**14-24 Jul 2025**



# **ICRC 2025 - The Astroparticle Physics Conference**

***DM***

CICG - International Conference Centre - Geneva, Switzerland  
17 rue de Varembe CH - 1211 Geneva Switzerland

## Thursday 17 July

13:20

### DM: direct detection

**Session** | **Location:** Room 4

13:20–13:35

#### Searching for Dark Matter and Rare Events with XENONnT

##### Speaker

Dr Emanuele Angelino

13:35–13:50

#### Latest results and prospects of the SENSEI experiment.

##### Speaker

Ansh Desai

13:50–14:05

#### PandaX-4T Reaches As A Multi-purpose LXe Experiment

##### Speaker

Yi Tao

14:05–14:20

#### Light WIMP search with the NEWS-G experiment

##### Speaker

Jean-Marie Coquillat

14:20–14:35

#### The Darkside-20k experiment

##### Speaker

Oscar Alejandro Taborda Pulgarin

14:35–14:50

#### Latest results and future prospects of DEAP-3600

##### Speaker

Abhijit Garai

14:50

15:20

### DM: direct detection

**Session** | **Location:** Room 4

15:20–15:35

#### Quenching factor measurement for NEWS-G

##### Speaker

Neha Panchal

15:35–15:50

#### The SABRE South Experiment at the Stawell Underground Physics Laboratory

##### Speaker

Dr Irene Bolognino

15:50–16:05

#### The DarkSide-20k Dark Matter Detector: Physics Goals and Data Acquisition

##### Speaker

Marek Bohdan Walczak

16:05–16:20

#### SuperCDMS Experiment at SNOLAB: Current Status and Recent CUTE Results

**Speaker**

Moaaz Elwan

16:20–16:35

**IceCube as a direct detector of sub-GeV dark matter****Speaker**

Allegra Cavicchi

16:35–16:50

**Halo-independent bounds on the WIMP-nucleon couplings of long-range interactions from direct detection and neutrino observations****Speaker**

Dr Sunghyun Kang

16:50

## Friday 18 July

13:20

### DM: indirect detection

**Session** | **Location:** Room 4 | **Convener:** Marco Cirelli

13:20–13:35

#### Dark Matter Searches in Dwarf Galaxies with VERITAS

##### Speaker

Conor McGrath

13:35–13:50

#### Line emission search from Dark Matter annihilation in the Galactic Center with LST-1

##### Speaker

Mr Abhishek Abhishek

13:50–14:05

#### Search for gamma-ray spectral lines from dark-matter annihilation with the DAMPE satellite

##### Speaker

Jennifer Maria Frieden

14:05–14:20

#### Searching for Axion-like Particles signatures in the M87 spectrum with HAWC

##### Speaker

José Erandi Serna Franco

14:20–14:35

#### A 43 GeV gamma-ray line in the nearby galaxy clusters?

##### Speaker

Dr Zhaoqiang Shen

14:35–14:50

#### Modeling of Dark Matter Prompt and Secondary Signatures in Dwarf Spheroidal Galaxies

##### Speaker

Athithya Aravinthan

14:50

15:20

### DM: indirect detection

**Session** | **Location:** Room 4 | **Convener:** Marco Cirelli

15:20–15:35

#### Exploring Dark Matter in Galaxy Clusters with MeerKAT: South Africa's powerful radio telescope at the forefront of astronomy

##### Speaker

Natasha Lavis

15:35–15:50

#### Search for dark matter around intermediate mass black holes with the H.E.S.S. experiment

**Speaker**

Prof. Manuela Vecchi

15:50–16:05

**Constraints on Dark Matter from Mini Spikes Around Stellar-Mass Black Holes Using Fermi-LAT Observations****Speaker**

Ana Vitoria de Almeida Martinheira Braga

16:05–16:20

**Prospects of Axion-like Particles searches with the Southern Wide-field Gamma-ray Observatory (SWG0)****Speaker**

Rubén Alfaro

16:20–16:35

**Modelling the unknown with CTA0: Investigating indirect WIMP dark matter search systematics****Speaker**

Liam Pinchbeck

16:35–16:50

**Probing WIMP Dark Matter with the Southern Wide-field Gamma-ray Observatory (SWG0)****Speaker**

Aion Viana

16:50

17:05

**DM: indirect detection****Session** | **Location:** Room 4 | **Convener:** Marco Cirelli

17:05–17:20

**Discovering the Higgsino at CTA0-North within the Decade****Speaker**

Tomohiro Inada

17:20–17:35

**Search for line-like and box-like features in Galactic gamma-ray spectra as signatures of dark matter using 15+ years of Fermi-LAT data****Speaker**

Mario Giliberti

17:35–17:50

**A Joint Gamma-ray Search for Dark Matter in Dwarf Spheroidal Galaxies with Fermi-LAT, HAWC, H.E.S.S., MAGIC and VERITAS****Speaker**

Javier Rico

17:50–18:05

**Prospects for the detection of Dark Matter with Long-lived Mediators in the Sun using the Southern Wide-field Gamma-ray Observatory****Speaker**

Micael Andrade

18:05-18:20

**Search for interactions of dark matter with high-energy neutrinos from extragalactic sources using the IceCube Neutrino Observatory**

**Speaker**

Woosik Kang

18:20-18:35

**Dark Matter from the Littlest Galaxies: Gamma-ray Insights from Ultra-Faint Dwarfs and IMBHs**

**Speaker**

Milena Crnogorčević

18:35

## Saturday 19 July

13:20

### DM: charged anti-matter

**Session** | **Location:** Room 4

13:20–13:35

#### Advancing Anti-Deuteron Detection in Cosmic Rays: Innovations in Methods and Technologies

**Speaker**

Luigi Ernesto Ghezzer

13:35–13:50

#### The GAPS Experiment: A Search for Dark Matter Using Low-Energy Antinuclei

**Speaker**

Kelsey Yee

13:50–14:05

#### Estimating the performance of the GAPS detector with muon ground testing data from Antarctica

**Speaker**

Dr Achim Stoessl

14:05–14:20

#### GAPS Detector Cooling System: Results from Antarctic Ground Tests

**Speaker**

Kazutaka Aoyama

14:20–14:35

#### The GRAMS (Gamma-Ray and AntiMatter Survey) Project: Overview and Current Status

**Speaker**

Tsuguo Aramaki

14:35

## Tuesday 22 July

13:20

### DM: axions

**Session** | **Location:** Room 4 | **Convener:** Francesca Calore

13:20–13:35

#### Search for heavy axions with the European X-Ray Free Electron Laser

##### Speaker

Prof. Subir Sarkar

13:35–13:50

#### Probing axionlike particles with invisible neutrino decay using the IceCube observations of NGC 1068

##### Speaker

Bhanu Prakash Pant

13:50–14:05

#### Search for Axion-like Particles Using TeV Blazar Observations with the HAWC Observatory

##### Speaker

Ian James Watson

14:05–14:20

#### Detecting axion star mergers in the pi-axiverse

##### Speaker

Geoff Beck

14:20–14:35

#### Do axions put out gamma-ray bursts?

##### Speaker

Oindrila Ghosh

14:35–14:50

#### Novel bounds on decaying axionlike particle dark matter from the cosmic background

##### Speaker

Sara Porras Bedmar

14:50

15:20

### DM: astrophysics

**Session** | **Location:** Room 4 | **Convener:** Francesca Calore

15:20–15:35

#### Probing late-time annihilations of oscillating asymmetric dark matter via rotation curves of galaxies

##### Speaker

Júlia Gouvêa Mamprim

15:35–15:50

#### A detailed characterisation of low-mass dark matter subhalo tidal tracks via numerical simulations

##### Speaker

ALEJANDRA AGUIRRE-SANTAELLA



15:50-16:05

**The CMZ anomalous Ionization rate explained by MeV DM****Speaker**

Pedro De la Torre Luque

16:05-16:20

**Astrophysical jets to constrain the dark matter nature****Speaker**

Dimitrios Kantzas

16:20-16:35

**Impact of baryons on the population of galactic subhalos and implications for dark matter searches****Speaker**

Sara Porras Bedmar

16:35

17:05

**DM: indirect detection****Session** | **Location:** Room 4 | **Convener:** Francesca Calore

17:05-17:20

**Heavy Dark Matter Annihilation search with IceCube tracks****Speaker**

Dan Salazar-Gallegos

17:20-17:35

**Dark matter searches in the Galactic Center with IceCube-DeepCore and IceCube-Upgrade****Speaker**

Nhan Chau

17:35-17:50

**Indirect dark matter searches towards the Sun using the full ANTARES data set****Speaker**

Chiara Poirè

17:50-18:05

**Neutrino production in the central dark-matter spikes of active galaxies****Speaker**

Polina Kivokurtseva

18:05-18:20

**Limits on WIMP-Scattering Cross Sections using Solar Neutrinos with Ten Years of IceCube Data****Speaker**

Jeffrey Lazar

18:20-18:35

**WIMP Dark Matter Searches from the Galactic Centre with KM3NeT****Speaker**

Adriana Bariego-Quintana

18:35

## Wednesday 23 July

13:20

### DM: primordial black-holes & accelerators

**Session** | **Location:** Room 4

**13:20–13:35** **Cosmic antimatter signatures from primordial black holes**

**Speaker**

Lorenzo Stefanuto

**13:35–13:50**

**An all-sky search for individual Primordial Black Hole burst with LHAASO**

**Speaker**

Dr Houbing Jiang

**13:50–14:05** **Search for Beyond Standard Model Physics with FASER at the LHC**

**Speaker**

Tomohiro Inada

**14:05–14:20**

**Searching for massive, non-relativistic particles in space with the SQM-ISS detector**

**Speaker**

Zbigniew Plebaniak

**14:20–14:35**

**Search for Sub-Relativistic Magnetic Monopoles with the IceCube Neutrino Observatory**

**Speaker**

Jonas Häußler

14:35

15:20

### DM: developments

**Session** | **Location:** Room 4

**15:20–15:35**

**The Cross-Disciplinary Hunt for Dark Matter: Machine Learning and Material Science Meet Astroparticle Physics**

**Speaker**

Carlos Blanco

**15:35–15:50**

**A novel low-background photomultiplier tube R12699 developed for xenon based detectors**

**Speaker**

Zhou Zhizhen

**15:50–16:05** **Design and Validation of Cryogenic Readout Electronics at 165K**

**Speaker**

Ms yang liu

16:05-16:20

## Development of a GAGG-based low-background neutron detector

### Speaker

Andrea MOLINARIO

16:20-16:35

## Searching for Dark Matter with the RES-NOVA detector

### Speaker

Nahuel Ferreiro Iachellini

16:35-16:50

## Characterization of the Piedicastello Tunnels as a Potential Underground Laboratory for Astroparticle Physics in Trento, Italy

### Speaker

Francesco Nozzoli

16:50