Session Program

Jul 8 – 12, 2024

IDM 2024

Parallel 3

L'Aquila, Italy
Plenary sessions: Palazzo dell’Emiciclo, Sala Ipogea Parallel sessions: Palazzo dell’Emiciclo, Sala Ipogea - GSSI Rectorate, Auditorium - GSSI, Sala Rossa (MLH)

Mon, July 8

2:00 PM

Parallel 3: Axion/Sterile

Session | **Location:** GSSI Rectorate, Auditorium | **Convener:** Giovanni Benato

2:00 – 2:17 PM **HAYSTAC Status and Future Plans**

Speaker
Karl van Bibber

2:17 – 2:34 PM
High Frequency Microwave Cavity Design Innovations for Axion Dark Matter Searches

Speaker
Heather Jackson

2:34 – 2:51 PM **The ALPHA axion dark matter experiment**

Speaker
Andrea Gallo Rosso

2:51 – 3:08 PM **QUAX: Probing Axion Dark Matter through quantum technologies**

Speaker
Giovanni Carugno

3:08 – 3:26 PM **BREAD: Broadband Reflector Experiment for Axion Detection**

Speaker
Stefan Knirck

3:26 – 3:43 PM **The axion dark matter experiment MADMAX**

Speaker
Jacob Egge

3:43 – 4:00 PM **Searching for sub-μeV axions with DMRadio: Overview and Status**

Speaker
Alexander Droster

4:00 PM

4:30 PM

Parallel 3: Axion/Sterile

Session | **Location:** GSSI Rectorate, Auditorium | **Convener:** Christoph Andreas Ternes

4:30 – 4:47 PM
Status of the Quantum Sensors for the Hidden Sector (QSHS) Experiment

Speaker
Mitchell Perry

4:47 – 5:04 PM
A new upper limit on the axion-photon coupling with an extended CAST run with a Xe-based Micromegas detector

Speaker
Cristina Margalejo Blasco

5:04 – 5:21 PM **Searches of Axion/ALPs with (Baby)IAXO**

Speaker
Julia Vogel

5:21 – 5:38 PM
New results for searches of exotic decays with NA62 in beam-dump mode

Speaker
Jonathan Schubert

5:38 – 5:55 PM
Searches for Physics Beyond the Standard Model at the Short-Baseline Near Detector

Speaker
Xiao Luo

5:55 – 6:12 PM
Searching for Dark Sector Particles in the NEON Experiment at a Reactor Facility

Speaker
Seo Hyun Lee

6:12 – 6:29 PM **keV sterile neutrinos search with the KATRIN experiment**

Speaker
Anthony Onillon

6:50 PM

Tue, July 9

2:00 PM

Parallel 3: Light Dark Matter

Session | **Location:** GSSI Rectorate, Auditorium | **Convener:** Carla Macolino

2:00 – 2:20 PM

Commissioning of the MIGDAL detector with fast neutrons at NILE/ISIS

Speaker
Tim Marley

2:20 – 2:40 PM

MIRACLUE: Migdal effect search using position sensitive gaseous detectors

Speaker
Kiseki Nakamura

2:40 – 3:00 PM

Light Dark Matter in Direct Detection: Plasmon and Migdal Effects

Speaker
Lei Wu

3:00 – 3:20 PM

Improved modeling of charge trapping and impact ionization in phonon-based crystal detectors used for dark matter searches

Speaker
Matthew Wilson

3:20 – 3:40 PM

Theoretical upper bounds on the dark matter-electron scattering rate in the generalised susceptibility formalism

Speaker
Michał Iglicki

3:40 – 4:00 PM

Optimal anti-ferromagnets for light dark matter detection

Speaker
Angelo Esposito

4:00 PM

4:30 PM

Parallel 3: Light Dark Matter

Session | **Location:** GSSI Rectorate, Auditorium | **Convener:** Paolo Agnes

4:30 – 4:50 PM

Searching for Light Dark Matter with Narrow-Gap Semiconductors: The SPLENDOR Experiment

Speakers
Samuel Watkins, Samuel Watkins

4:50 – 5:10 PM

Direct dark matter searches using ALPS II’s TES detector system

Speaker
Christina Schwemmbauer

5:10 – 5:30 PM

Development of phonon-mediated particle detectors with meV to eV energy thresholds for sub-GeV dark matter direct detection

Speaker
Karthik Ramanathan

5:30 – 5:50 PM **Dark Matter Induced Power in Quantum Devices**

Speaker
Anirban Das

5:50 – 6:10 PM

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

Speaker
Marco Vignati

6:50 PM

Wed, July 10

2:00 PM

Parallel 3: Axion/Sterile

Session | **Location:** GSSI Rectorate, Auditorium | **Convener:** Carla Macolino

2:00 – 2:20 PM

Indirect Detection of the QCD Axion: Resonant Conversion in Neutron Star Magnetospheres

Speaker
Luca Visinelli

2:20 – 2:40 PM

Improved bounds on the hot QCD axion

Speaker
Giovanni Grilli di Cortona

2:40 – 3:00 PM

Searching for axion dark matter from dwarf spheroidal galaxies and the Sun

Speaker
Marco Taoso

3:00 – 3:20 PM

Electron Trap as Dark Matter Detector

Speaker
Samuel S. Y. Wong

3:20 – 3:40 PM

First results and future prospects of the Laser-Interferometric Detector for Axions (LIDA)

Speaker
Joscha Heinze

3:40 – 4:00 PM

Current status and future plans of Dark matter Axion search with riNg Cavity Experiment (DANCE)

Speaker
Hinata Takidera

4:00 – 4:20 PM

HyperLSW – Experimental Setups for Determining the Amount of Axion Dark Matter After a Discovery

Speaker
Sebastian Hoof

4:20 PM

Thu, July 11

2:00 PM

Parallel 3: Light Dark Matter

Session | **Location:** GSSI Rectorate, Auditorium | **Convener:** Paolo Agnes

2:00 – 2:20 PM **The Light Dark Matter eXperiment (LDMX)**

Speaker
Einar Elén

2:20 – 2:40 PM **Searches for dark sector particles at Belle and Belle II**

Speaker
Doris Y Kim

2:40 – 3:00 PM **The X17 search with the PADME experiment**

Speaker
Marco Mancini

3:00 – 3:20 PM
SPICE: a Solid State Dark Matter Direct Detection Experiment from the TESSERACT Collaboration

Speaker
Roger Romani

3:20 – 3:40 PM
Recent progress towards the HeRALD detector for light dark matter with superfluid helium

Speaker
Scott Haselschwardt

3:40 – 4:00 PM **Prospects for DarkSide-20k sensitivity to light dark matter particles**

Speaker
Marie van Uffelen

4:00 PM

4:30 PM

Parallel 3: Light Dark Matter

Session | **Location:** GSSI Rectorate, Auditorium | **Convener:** Elisabetta Baracchini

4:30 – 4:50 PM
Searching for Millicharged Particles from the eV to GeV mass scale with Skipper-CCDs

Speaker
Santiago Perez

4:50 – 5:10 PM **Oscura: a 10 kg skipper-CCD detector to search for dark matter**

Speaker
Brenda Aurea Cervantes Vergara

5:10 – 5:30 PM
The DarkNESS mission: searching for dark matter with a Skipper-CCD satellite observatory

Speaker
Nate Saffold

5:30 – 5:50 PM **Dark matter searches using low-energy data of Super-Kamiokande**

Speaker
Koun Choi

5:50 – 6:10 PM

Discovery potential of fermionic dark matter by using the Xe Charged Current tagging in KamLAND-Zen.

Speaker
Koga Tachibana

6:10 – 6:30 PM

Exploring the Low-Energy Spectrum of CUORE to Search for Solar Axions

Speaker
Alberto Ressa

6:30 – 6:50 PM

Boosted sub-GeV Dark Matter from Primordial Black Holes in DarkSide-50

Speaker
Roberta Calabrese

6:50 PM