

Session Program

16-19 Jun 2025



Dark Tools

Research talks

Dipartimento di Fisica, Aula C
Via Pietro Giuria 1 10100 Torino

Monday 16 June

17:30

Research talks

Session | **Location:** Dipartimento di Fisica, Aula C, Via Pietro Giuria 1 10100 Torino | **Convener:** Jan Heisig

17:30-17:45

RelExt: A New Dark Matter Tool for the Exploration of Dark Matter Models

Speaker

Johann Plotnikov

17:45-18:00

Beyond Kinetic Equilibrium: DRAKE for two-component dark sectors

Speaker

Shiuli Chatterjee

18:00-18:15

Unlocking the Inelastic Dark Matter Window with Vector Mediators

Speaker

Ana Luisa Foguel

18:30

Tuesday 17 June

17:30

Research talks

Session | **Location:** Dipartimento di Fisica, Aula C, Via Pietro Giuria 1 10100 Torino | **Convener:** Tracy Slatyer

17:30-17:50

Prospects of probing weak-scale Dark Matter in future MeV telescopes

Speaker

Dr Arpan Kar

17:50-18:05

Observations of the dark matter halo of the Andromeda Galaxy with INTEGRAL/SPI

Speaker

Laura Eisenberger

18:05-18:20

Dark Matter Scattering Constraints From Stars Surrounding Sgr A*

Speaker

Isabelle John

18:20-18:35

Multi-Component Dark Matter from Minimal Flavor Violation

Speaker

Keyun Wu

18:35-18:50

General Framework for Flavored Dark Matter Models

Speaker

Lena Rathmann

18:50

Wednesday 18 June

17:30

Research talks

Session | **Location:** Dipartimento di Fisica, Aula C, Via Pietro Giuria 1 10100 Torino | **Convener:** Mattia Di Mauro

17:30-17:40 **Toward a universal coalescence model for antideuteron production**

Speaker

Lorenzo Stefanuto

17:40-17:55

Antideuteron production from beauty hadron decay: a path for collider searches

Speaker

Marta Razza

17:55-18:10 **Antinuclei production from weakly decaying b -hadrons**

Speaker

Jordan Koechler

18:10-18:20 **Antinuclei from Primordial Black Holes**

Speaker

Agnese Tolino

18:20-18:35

(Anti)nuclei production mechanisms and latest constraints from ALICE at the LHC

Speaker

Giovanni Malfattore

18:40

Thursday 19 June

11:35

Research talks

Session | Location: Dipartimento di Fisica, Aula C, Via Pietro Giuria 1 10100 Torino

11:35-12:05 **CosmiXs: Improved spectra for dark matter indirect detection**

Speaker

Mattia Di Mauro

12:05-12:25

High-Significance Detection of Correlation Between the Unresolved Gamma-Ray Background and the Large-Scale Cosmic Structure

Speaker

Bhashin Thakore

12:25

14:00

Research talks

Session | Location: Dipartimento di Fisica, Aula C, Via Pietro Giuria 1 10100 Torino | **Conveners:**

Dr Chiara Arina, David Cerdeño

14:00-14:15

Rekindling s-Wave Dark Matter Annihilation Below 10 GeV with Breit-Wigner Effects

Speaker

Margaux Jomain

14:15-14:30

Freeze-in as a Complementary Process to Freeze-Out

Speaker

Karim Elyaouti

14:30-14:45

Freeze-in with low reheating temperature

Speaker

Thomas Reggio

14:45-15:00

Precise relic abundance and photon spectra for general Neutralinos

Speaker

Stefan Lederer

15:00-15:15

Next-to-Leading-Order QCD Corrections to Dark Matter Annihilation into W qq in the CxSM - Light Higgs Scenario

Speaker

Pavao Brica

15:15-15:30

The cS2HDM as a unified framework for dark matter and electroweak baryogenesis

Speaker

Pedro Gabriel

15:30-16:00	Coffee break
16:00-16:15	Unveiling Imprints from Dark Symmetries: Signatures of Axion Portal to Scalar Dark Matter
Speaker Tommaso Sassi	
16:15-16:35	Searching axion dark matter with Quantum Technology
Speaker Sreemanti Chakraborti	
16:35-16:50	Celestial objects as Leptophilic dark matter detectors
Speaker Thong T. Q. Nguyen	
16:50-17:05	A Material-Independent Upper Bound on the Absorption Rate of Solar Dark Photons
Speaker Theresa Backes	
17:05	