

Session Program

11-13 May 2026

Superconducting Technologies for Dark Matter

Poster Session

Roma
Centro Congressi d'Ateneo, Via Salaria 113, 00198 Roma

Tuesday 12 May

16:10

Poster Session

Session | **Location:** Roma, Centro Congressi d'Ateneo, Via Salaria 113, 00198 Roma

16:15-16:35 **The BULLKID-DM Demonstrator**

Speakers

Davide Quaranta, Matteo Folcarelli

16:15-16:35

CRAB: Precision Measurements of Sub-keV Nuclear Recoils in Cryogenic Detectors

Speaker

Elisabetta Bossio

16:15-16:35

A machine learning approach for optimizing quantum sensing protocols on superconducting qubits

Speaker

Nathan Campioni

16:15-16:35

Probing the dark matter - electron scattering detection potential with BULLKID-DM

Speaker

Camilla Bonomo

16:15-16:35

Towards High-Resolution Spectroscopy of Low-Energy Electrons with Transition-Edge Sensors

Speaker

Benedetta Corcione

16:15-16:35

Impact of Ionizing Radiation on Noise and Correlated Errors in Superconducting Qubit Arrays

Speaker

Raja Yasir Mehmood Khan

16:15-16:35

Strongly tunable YIG gyromagnetic modes for dark matter search

Speaker

Jeanne Bally

16:35-16:55

DMRadio-50L: Searching for Sub- μ eV Axion Dark Matter

Speaker

Jessica Fry

16:35-16:55

Broad frequency tuning of a Nb₃Sn superconducting microwave cavity for dark matter searches

Speaker

Dora Maiello

16:35-16:55

Kinetic Inductance Detector with integrated phonon collectors**Speaker**

Leonardo Pesce

16:35-16:55

Evaluating radiation impact on transmon qubits in above and underground facilities**Speaker**

Alberto Ressa

16:35-16:55

Measuring quasiparticle dynamics for particle impact reconstruction in a superconducting qubit chip**Speaker**

Emanuela Celi

16:35-16:55

Development of TES-Based Cryogenic Detectors for Rare-Event Searches**Speaker**

Vladyslav Berest

16:35-16:55

Multiplexed operation of superconducting qubits for particle detection**Speaker**

Francesco De Dominicis

16:55-17:15

Progress towards the BULLKID-DM experiment: development of the veto system and the calibrator.**Speakers**

Mario De Lucia, Tommaso Lari, Giulia Spina, Matteo Del Gallo Roccagiovine

16:55-17:15

A Cryogenic Muon Tagging System Based on Kinetic Inductance Detectors for Superconducting Qubits**Speaker**

Letizia Tirabasso

16:55-17:15

Transmon Qubit as Single Photon Detector for Axion Searches in the RADES Experiment**Speaker**

Elisa Gabbrielli

16:55-17:15

Instrumentation of frequency-division multiplexed cryogenic detectors**Speaker**

Timo Philipp Muscheid

16:55-17:15

Searching for Dark Matter with Hybrid Quantum Circuits

Speaker
Kenta Kodama

16:55-17:15 **The DarkDot Experiment**

Speaker
Nora Hoch

16:55-17:15

BULLKID-DM: searching for light WIMPs with monolithic detector arrays

Speaker
Matteo Cappelli

16:55-17:15

**Abstract Poster STDM Rome 2026 Giosue Sardo Infirri April 17, 2026 QUAX
Ferromagnetic haloscope read out by a Single Microwave Photon Counter**

Speaker
Giosue' Sardo Infirri

17:20