



千葉大学大学院理学研究院附属

ハドロン宇宙国際研究センター

International Center for Hadron Astrophysics

# December ICEHAP Seminar

**Date** Dec. 25 Wednesday 14:00~16:00

**Location** ICEHAP Office (Engineering Research Bldg.1 Room609-1)

**By** Romain Gaior (Laboratory Nuclear and High-Energy Physics)

**Title**

**『Dark matter searches with the DAMIC detector』**

## Abstract

DAMIC (for Dark Matter In CCD) seeks for DM interaction in thick fully depleted CCDs. Thanks to the precise energy estimation, the granularity and the very low noise of these detectors, DAMIC is sensitive to low mass WIMP (below  $10\text{GeV}/c^2$ ) through nuclear recoil but also to hidden sector model through interaction of DM particles with electrons. DAMIC at Snolab, a version of DAMIC experiment with 42 grams of active detector installed at Snolab, has ended its phase of science run accumulating 13kg.day - more than a 20-fold increase compared to the previous publication. We present the latest results of DM searches with this increased exposure combined with an improved background model and give the status of the next generation of this experiment, DAMIC-M, currently in development.

**Location:** Neutrino Astrophysics Department

@ Engineering Research Bldg. 6<sup>th</sup> floor



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