

Laboratório de Instrumentação e Física Experimental de Partículas

## **LIP Seminar**

Thursday, 8th of April, 11h30

## Low mass dark matter searches at SuperCDMS Belina von Krosigk (University of Hamburg)

The Super Cryogenic Dark Matter Search (SuperCDMS) is a direct Dark Matter search experiment designed to observe nuclear recoils induced by WIMPs. However, it is also sensitive to low mass dark matter particle candidates which are beyond the standard WIMP paradigm and which could create electron recoil signals in the cryogenic silicon and germanium detectors. The pool of candidates is rich and includes Dark Photons, ALPs (axion like particles) and LDM (Light Dark Matter) particles. Lacking knowledge of the particles that constitute the dark sector of the Universe it is essential to make the search for them as broad as possible. This talk will give an overview of low mass dark matter search strategies at the upcoming SuperCDMS SNOLAB experiment and will highlight recent results with R&D devices.

Location: Videoconference - Zoom https://indico.lip.pt/event/899/ Connection details URL: https://videoconf-colibri.zoom.us/j/82345449841 PIN: LIPSeminar Or by phone: Dial: +351 308 810 988 (Portugal Toll) or +351 211 202 618 (Portugal Toll) Meeting ID: 823 4544 9841 Or iPhone one-tap: 308810988,82345449841# or 211202618,82345449841# PIN for phones: 5506206082