Latest results and prospects of the SENSEI experiment.

Wednesday 26 March 2025 13:45 (15 minutes)

SENSEI (Sub-Electron Noise Skipper Experimental Instrument) is the first experiment to implement silicon skipper CCDs to search for dark matter. Skipper-CCDs can resolve single electrons in each of millions of pixels, which allows for the low energy threshold required to detect sub-GeV dark matter interacting with electrons. SENSEI recently measured the lowest event rates containing one electron in silicon detectors, resulting in world-leading sensitivity. In this talk, we present the latest results from two science runs at SNOLAB as well as the future prospects for SENSEI.

Authors: BOTTI, Ana Martina (Fermilab); COLLABORATION, SENSEI
Presenters: BOTTI, Ana Martina (Fermilab); COLLABORATION, SENSEI
Session Classification: SESSION 12: Direct Detection: status of Light DM detection