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## **Latest results from the SENSEI experiment on sub-GeV dark matter searches**

*Thursday 31 August 2023 14:45 (15 minutes)*

In this talk, we present and discuss the latest results of the SENSEI experiment at SNOLAB. We will also discuss the prospects for rare event searches with skipper-CCDs. Skipper-CCDs are pixelated silicon-based detectors that can perform multiple non-disruptive measurements of the same charge package. Their sub-electron resolution allows the detection of eV energy transfers, such as that expected from light-dark matter interacting with electrons in a silicon target. SENSEI (Sub-Electron Noise Skipper Experimental Instrument) was the first experiment to implement skipper-CCD for this purpose and to produce world-leading results using this technology.

### **Submitted on behalf of a Collaboration?**

Yes

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**Session Classification:** Dark matter and its detection

**Track Classification:** Dark matter and its detection