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## A Nal-based cryogenic scintillating calorimeter: status and results of the COSINUS project

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The COSINUS (Cryogenic Observatory for SIgnals seen in Next-generation Underground Searches) project aims to provide a model independent cross-check of the long-standing DAMA/LIBRA claim on the observation of dark matter by using the same target material, but with a different experimental approach. The use of sodium iodide (NaI) crystals, operated at cryogenic temperature as scintillating calorimeters, provides both a low energy threshold for nuclear recoil events as expected from dark matter particle interactions, and the possibility to perform particle discrimination. Indeed, the dual read-out of phonon and light allows to perform signal to background discrimination on an event-by-event basis, a unique feature in comparison to other NaI-based dark matter searches. In this talk we will discuss in detail the COSINUS detector concept and we will present the performances of our first detector prototypes together with the results of the first measurements.

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