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Direct dark matter search with the DAMIC experiment at SNOLAB

During the last century, several astronomical observations suggested the existence of a new massive matter, called dark matter, as it is not subjected to the electromagnetic interaction. It seems to compose 27% of the universe while the visible matter that forms stars and galaxies occupy only 5% of it. Such huge amount of matter has not yet been detected and the most promising candidate are the so-called Weakly Interacting Massive Particles (WIMP), making its search very challenging. DAMIC (Dark Matter in CCDs) is a direct dark matter search experiment using 1 g fully-depleted thick charge couple devices. It is located 2 km underground at SNOLAB in Canada allowing to reduce considerably the cosmic ray background. Featuring a low electronic readout noise $\sim 3 e^-$, it reaches unique high sensitivity in the low mass region < 5 GeV. The poster presents the experiment as well as its latest results in the search for dark matter.

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