Fourth Rome Physics Encounter @LNF



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DarkSide Status and Prospects

Tuesday, 17 March 2020 11:45 (45 minutes)

DarkSide uses a dual-phase Liquid Argon Time Projection Chamber to search for WIMP dark matter. The current detector, DarkSide-50, is running since mid 2015 with a target of 50 kg of Argon from an underground source. In this contribution the latest results of searches of WIMP nucleus interactions, in the WIMP masses range of GeV-TeV, together with results from WIMP electron interactions in the sub-GeV mass range, are fully presented. The future of DarkSide with a new generation experiment, involving a global collaboration from all the current Argon based experiments, is also presented.

Presenter: SANFILIPPO (ROMA 3), Simone (on behalf of the DarkSide collaboration) **Session Classification:** Rome Physics Encounters