Low Mass Dark Matter Searches: Experimental Constraints and prospects

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Abstrac: The existence of Dark Matter (DM) is supported by a wide range of astrophysical evidences. Many extensions of the Standard Model of Particle Physics (SM) provides DM candidates in the 10 [GeV]-1 [TeV] mass range, that also address other SM puzzles. These models are nowadays severely constrained. This is leading to contemplate other theoretical possibilities, the dark sector models: a generic feature of those models is that DM belongs to a secluded Dark Sector with a rich phenomenology that couples to SM particles through a portal sector. These models predict dark matter masses in the 1 MeV to a few GeV range. In this talk, I describe first the status of DM searches in the 1-10 [GeV] mass range and discuss the prospects at lower masses, with special focus on the Argon target.

Jueves 19 de marzo, 12 horas, seminario de Física Nuclear

On-line

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