

Overview of dark matter searches

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Dark matter accounts for 23% of the mass-energy density of the Universe, however, its nature and origins remain the most important open questions in physics. The search for Weakly Interacting Massive Particles (WIMPs), one of the leading dark matter particle candidate, is now in a decisive phase. This talk will present the status of the leading experimental searches and summarize constraints on the main theoretical models. Special attention will be given to detectors based on liquefied noble gases: xenon and, in particular, argon. Finally, perspectives and limitations for future dark matter searches with very large next generation detectors will be discussed.

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