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New limits on low-mass dark matter

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Sub-GeV mass dark matter has seen significant theoretical and experimental interest in recent years, with many proposed and upcoming direct detection experiments targeting this regime. In this talk, I will present new constraints on hadronically-interacting dark matter that arise from one-loop interactions with photons and electrons during big bang nucleosynthesis, as well as from rare meson decays. These constraints are orders of magnitude stronger than existing astrophysical bounds and have significant implications for future experiments in the MeV mass range.

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