

Abstract Submitted
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Constraints on quark interactions with light dark matter BOGDAN DOBRESCU, CLAUDIA FRUGIUELE, Fermilab — We explore how strongly can dark matter interact with quarks. We concentrate on dark matter particles of mass below 5 GeV, which are poorly constrained by direct detection searches. The theoretical constraints (such as those imposed by anomaly cancellation) are interwoven with experimental ones (such as those from searches for vector-like quarks). We present renormalizable theories that alleviate those constraints, and then we propose some experimental tests using neutrino detectors.

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