

Leptophilic Dark Matter and muon $g-2$

Tuesday

November 4

4 P.M.

Rm 415 NSH

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I will present models where the dark matter couples to Standard Model leptons at tree level, whereas interactions with quarks only arise at one-loop level. These models give rise to novel phenomenology. In particular, I will show the corrections to the muon magnetic moment in the context of a set of simplified models, and compare the resulting constraints with those from direct detection and collider experiments. While these constraints are generally severe, I will highlight the limited regions of parameter space where the muon magnetic moment anomaly can be consistently explained by leptophilic dark matter.