GUINEAPIG 2024 Workshop on Light Dark Matter



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H-Parity: Why Vector-like Confining Dark Sectors Are Non-Scintillating

Wednesday, 21 August 2024 13:30 (30 minutes)

I show that vector-like confining dark sectors are endowed with a hitherto overlooked parity akin to SM's G-parity. This parity forbids all the leading interactions of such confining dark sectors with SM, effectively suppressing their scattering rate in direct detection experiments. This suggests a vast part of the parameter space of this class of models that was presumed ruled out is still viable and constitutes a well-motivated target for collider searches.

Presenter: ASADI, Pouya (U Oregon)