

Dark Matter Production meets Cosmologically Evolving Couplings

I will discuss the possibility that the coupling constants are dynamical quantities which take different values during early cosmological epochs. In particular, I will show that such scenarios (focused on the gauge couplings of either the SU(2) or SU(3) SM interactions) can have a profound effect on the production of dark matter through various mechanisms, resulting in different expectations for parameters which can realize the observed DM abundance with respect to standard cosmological histories.

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