

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.

Primary author: TAIT, Tim M.P. (University of California, Irvine)

Presenter: TAIT, Tim M.P. (University of California, Irvine)

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