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Scalar coupling evolution in a non-perturbative QCD resummation scheme

Monday 28 November 2022 17:00 (20 minutes)

I will talk about the Standard Model scalar coupling (λ) evolution in a particular QCD resummation scheme, where the QCD coupling becomes infrared finite due to the presence of a dynamically generated gluon mass, leading to the existence of a non-perturbative infrared fixed point. We discuss how this scheme can be fixed taking recourse to phenomenological considerations in the infrared region. The QCD β function associated to this non-perturbative coupling when introduced into the SM renormalization group equations increases the λ values at high energies.

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