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Asymptotic Safety and Vacuum Stability in the Litim-Sannino Model

Tuesday 24 September 2024 10:20 (40 minutes)

I will review the progress in the Litim-Sannino model, where Asymptotic Safety occurs in a perturbatively controlled manner. Recent computations of three- and four-loop RGEs has opened new pathways to estimate the width of the UV conformal window. I will discuss the methods and phenomena constraining the window. In this regard, the stability of the scalar potential is an important observable. I will present how high-quality predictions are obtained from the quantum-improved potential.

Presenter: STEUDTNER, Tom