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Vacuum stability of Froggatt-Nielsen models

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We discuss vacuum stability in Froggatt-Nielsen (FN) models. One concern in FN models is that for large flavon VEVs the running of the quartic Higgs coupling is enhanced what might lead to a more severe instability compared to the Standard Model (SM). We study this issue using the renormalization-group improved scalar potential. Another issue is that the

mixing between the Higgs and the flavon can potentially destabilize the potential. However, taking current bounds on the flavon phenomenology, we find that both effects do not lead to an instability that is more severe than in the SM.

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