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## An asymptotic safety scenario for gauged chiral Higgs-Yukawa models

Thursday 26 September 2013 14:00 (20 minutes)

We investigate chiral Higgs-Yukawa models with a non-abelian gauged left-handed sector reminiscent to a sub-sector of the standard model. We discover a new weak-coupling fixed-point behavior that allows for ultraviolet complete RG trajectories which can be connected with a conventional long-range infrared behavior in the Higgs phase. Despite the weak coupling properties, the system exhibits non-Gaußian features which are distinctly different from its standard perturbative counterpart: e.g., on a branch of the line of fixed points, we find linearly instead of quadratically running renormalization constants.

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