

Investigating of conformal window in the Litim-Sannino model at 433 order

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We consider a four-dimensional quantum field theory with weakly interacting ultraviolet fixed points up to four loop order for gauge couplings, three loop to Yukawa and quartic scalar beta functions. We compute them for a template $SU(N_c)$ gauge theory coupled to N_f fundamental fermions and elementary scalars. Moreover, we found fixed point couplings, field and mass anomalous dimensions, and universal scaling exponents up to the first three non-trivial orders in a small Veneziano parameter. Further, we investigate the size of the conformal window.

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