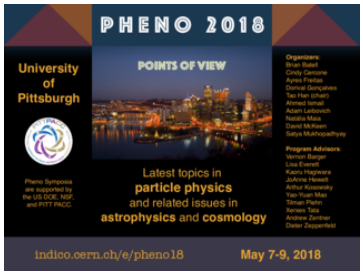

Contribution ID: **458** Type: **parallel talk**

Scaling Behavior of QCD Vertex Functions in Universal Extra Dimensions

Tuesday 8 May 2018 18:00 (15 minutes)

Minimal Universal Extra Dimensions (mUED) is an attractive model for physics beyond the Standard Model. It can however only be used as an effective theory valid up to an a priori unknown cutoff scale at which some UV completion takes over.
It is illuminating for that framework to quantify the sensitivity of observables to variations of the cutoff scale - we therefore compare the one loop QCD Vertex functions as they appear in mUED, calculated in different approaches.
Firstly, we perform an analytical summation over all KK modes running in the loops in the 4D effective theory, then an asymptotic expansion in the cutoff scale and finally we extract the vertex functions from the exact functional renormalization group equation, formulated in 5D.

Summary

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