



Contribution ID: 372

Type: Talk

The scales r_0 & r_1 in $N_f = 2 + 1$ QCD.

Friday 2 August 2024 14:35 (20 minutes)

We give an update and final result for the determination of the scales r_0 , r_1 , and $\frac{r_0}{r_1}$ for $2 + 1$ flavour QCD ensembles generated by CLS and calculated from an improved definition of the static force measured using Wilson loops. This update includes full control over systematic and full statistics with various continuum and chiral extrapolations of data covering pion masses between 130 MeV and 420 MeV over five lattice spacings down to 0.038 fm. Furthermore, the shape of the static potential is studied and, as an application of the scale r_0 , we compute the Lambda parameter of the ALPHA collaboration in units of r_0 .

Primary author: ASMUSSEN, Tom

Co-authors: KNECHTLI, Francesco (University of Wuppertal); HÖLLWIESER, Roman (University of Wuppertal); KORZEC, Tomasz (Bergische Universität Wuppertal)

Presenter: ASMUSSEN, Tom

Session Classification: Standard Model parameters

Track Classification: Standard Model Parameters