



Contribution ID: 339

Type: Talk

Non-perturbative running of quark masses in three-flavour QCD

Tuesday, July 26, 2016 2:40 PM (20 minutes)

We present our results for the computation of the non-perturbative running of renormalized quark masses in $N_f = 3$ QCD, between the electroweak and hadronic scales, using standard finite-size scaling techniques. The computation is carried out to very high precision, using massless $\mathcal{O}(a)$ improved Wilson quarks. Following the strategy adopted by the ALPHA Collaboration for the running coupling, different schemes are used above and below a scale $\mu_{swi} \sim m_b$, which differ by using either the Schrödinger Functional or Gradient Flow renormalized coupling. We discuss our results for the running in both regions, and the procedure to match the two schemes.

Primary authors: Dr RAMOS, Alberto (CERN); Prof. VLADIKAS, Anastassios (INFN, sezione Roma2); Prof. PENA, Carlos (Instituto de Física Teórica CSIC/UAM); Mr PRETI, David (Instituto de Física Teórica CSIC/UAM); Dr CAMPOS, Isabel (Instituto de Física Teórica CSIC/UAM); Dr FRITZSCH, Patrick (Instituto de Física Teórica CSIC/UAM)

Presenter: Mr PRETI, David (Instituto de Física Teórica CSIC/UAM)

Session Classification: Standard Model Parameters and Renormalization

Track Classification: Standard Model Parameters and Renormalization