Lattice2010



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Non-perturbative running of the coupling from four-flavour lattice QCD with staggered quarks

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Using the Schroedinger functional (SF) with a single staggered fermion field we calculate the SF coupling in four-flavour QCD for a wide range of energies and lattice sizes up to L/a=16. Preliminary results for the continuum extrapolation of the step-scaling function are presented. To reduce cutoff effects, one-loop $\mathrm{O}(a)$ improvement has been implemented. Various cross checks are made possible by the use of two independent sets of lattices with either T=L+a or T=L-a.

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Talk

Primary author: PEREZ RUBIO, Paula (Universidad Autonoma de Madrid and Trinity College Dublin)

Co-author: Dr SINT, Stefan (Trinity College Dublin)

Presenter: PEREZ RUBIO, Paula (Universidad Autonoma de Madrid and Trinity College Dublin)Session Classification: Parallel 32: Standard model parameters and renormalization

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