

## Renormalization constants of fermionic operators in lattice QCD with $N_f=4$ dynamical Wilson quarks

We report on preliminary non-perturbative computations of the renormalization constants in the RI-MOM scheme relevant for the lattice action with  $N_f=4$  dynamical flavours currently used by the European Twisted Mass Collaboration (ETMC). The knowledge of these constants is necessary in order to extract physical quantities from the rich program of lattice QCD simulations being performed by the ETMC. This step will enable the precise computation (at a few percent level) of quantities like quark masses, leptonic decay constants, form factors, bag-parameters which play a major role in the determination of the CKM matrix elements. For the purpose of this investigation dedicated simulations with four degenerate sea quark flavours are being performed. We also report on the recent coming into operation of the Aurora machine and the associated code optimization issues.

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