



Contribution ID: 105

Type: **Parallel**

Towards the determination of the charm quark mass on $N_f = 2 + 1$ CLS ensembles

Monday, 17 June 2019 14:20 (20 minutes)

We present the current status of our determination of the charm quark mass using $N_f = 2 + 1$ dynamical, non-perturbatively $O(a)$ -improved Wilson fermions. A subset of CLS ensembles with four different lattice spacings along the $\text{Tr}[M_q] = \text{const.}$ trajectory is used.

For the computation of the correlation functions involving valence charm quark propagators we employ distance preconditioning to gain the necessary precision. To stabilize the extrapolations to the physical point, we consider different definitions of the bare charm quark mass and corresponding renormalization procedures.

Authors: Mr JOSWIG, Fabian (Westfälische Wilhelms-Universität); Dr HEITGER, Jochen (Münster University); Mr KUBERSKI, Simon (Münster University)

Presenter: Mr KUBERSKI, Simon (Münster University)

Session Classification: Standard model parameters and renormalization

Track Classification: Standard Model Parameters and Renormalization