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## Towards charm physics with stabilised Wilson Fermions

Thursday, 3 August 2023 17:00 (20 minutes)

We report on first computations of hadron masses and matrix elements with charm quarks in O(a) improved (2+1)-flavour lattice QCD in the framework of stabilised Wilson Fermions. Employing SU(3)-flavour-symmetric gauge field ensembles from the OpenLAT initiative, we study two strategies how to fix the physical charm quark mass. In a first approach, we follow the standard procedure by matching to a physical meson mass such as the Dmeson mass. In our new approach we implement a massive renormalisation scheme that is designed to reduce mass-dependent cutoff effects. The latter requires the determination of certain improvement coefficients and renormalisation constants around the heavy quark mass scale which is also discussed in this contribution.

## **Topical** area

Quark and Lepton Flavor Physics

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