



Contribution ID: 330

Type: Poster

Kaon and D meson semileptonic form factors from lattice QCD

Tuesday, 24 June 2014 18:10 (2 hours)

We present calculations of the $K \rightarrow \pi, l\nu$ and $D \rightarrow \pi, l\nu$ semileptonic form factors at $q^2 = 0$.

These form factors are important for the determination of the CKM matrix elements

$lvertV_{us}$

$rvert$ and

$lvertV_{cd}$

$rvert$ respectively.

This work uses the HISQ action for both valence quarks and sea quarks on MILC $N_f = 2+1+1$ configurations.

We employ twisted boundary conditions to calculate the form factors at zero momentum transfer directly.

The $K \rightarrow \pi$ results are an update to previously published results with new data at the physical quark mass.

The $D \rightarrow \pi$ results are preliminary, working at the physical light quark mass at three different lattice spacings down to 0.06 fm.

Primary author: Dr PRIMER, Thomas (University of Arizona)

Presenter: Dr PRIMER, Thomas (University of Arizona)

Session Classification: Poster session

Track Classification: Weak Decays and Matrix Elements