

Kaon mixing beyond the standard model with physical masses.

Friday, 27 July 2018 15:20 (20 minutes)

I present an update on the calculation of beyond the standard model kaon mixing matrix elements in isospin symmetric pure QCD with $n_f = 2 + 1$ dynamical flavours calculated with data at the physical pion mass. Our analysis includes simulations with domain wall fermions and an Iwasaki gauge, at three-lattice spacings and a range of pion masses from the physical point up to 430 MeV.

We perform a simultaneous chiral and continuum fit to extrapolate to the physical point continuum limit. This builds upon our earlier work, by adding the third lattice spacing and ensembles calculated directly at the physical light quark mass, improving the precision of the mass extrapolation and removal of discretisation effects.

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Session Classification: Weak Decays and Matrix Elements

Track Classification: Weak Decays and Matrix Elements