Contribution ID: **130** Type: **not specified**

Neutral B and B_s mixing matrix elements using NRQCD and the MILC HISQ ensembles

Wednesday, 5 August 2020 14:40 (20 minutes)

In this talk I will briefly review our recent lattice calculations for matrix elements contributing to the mass and width differences of neutral B mesons [arXiv:1907.01025, arXiv:1910.00970]. The calculations were done using the MILC ensembles generated with 4-flavours of sea quarks utilizing the highly improved staggered quark action. An improved nonrelativistic quark action was used for the bottom quark. Consequences of these calculations include determinations of the CKM matrix elements $|V_{td}|$ and $|V_{ts}|$, predictions for the rare branching fractions $B_{d,s} \to \mu^+\mu^-$, and an improved Standard Model determinations for $\Delta\Gamma_s$.

Primary author: WINGATE, Matthew (University of Cambridge)

Co-authors: HPQCD COLLABORATION; DAVIES, C. T. H.; DOWDALL, R. J.; HARRISON, J. G. I. H.; HORGAN, R. R.; LEPAGE, G. P.; MONAHAN, C. J.; SHIGEMITSU, J.; WINGATE, M.

Presenter: WINGATE, Matthew (University of Cambridge)

Session Classification: Weak Decays and Matrix Elements

Track Classification: Weak Decays and Matrix Elements