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B-physics with domain-wall light quarks and nonperturbatively tuned relativistic b-quarks

Wednesday, 25 June 2014 09:40 (20 minutes)

We compute B-meson decay-constants and neutral B-meson mixing using relativistic b-quarks and domainwall light quarks. We present results for fB, fBs, and their ratio including a complete systematic error budget from an analysis of five sea-quark ensembles with pion masses as light as ~290 MeV and two lattice spacings of a~0.11 and 0.08 fm. We are currently adding data at the physical pion mass using the M"oebius domain-wall ensemble with a~0.11 fm recently generated by the RBC and UKQCD collaboration in order to reduce the dominant systematic uncertainty from the chiral extrapolation. We also report on progress on our calculation of the B-mixing matrix elements.

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