



Contribution ID: 185

Type: not specified

Computing the $B^*B\pi$ coupling with relativistic heavy quarks and domain wall fermions

Tuesday, 15 June 2010 09:30 (20 minutes)

The effective coupling constant $g_{VP\pi}$, describing the coupling of heavy mesons to the pseudoscalar Goldstone bosons (pions), is one of the fundamental parameters of the effective chiral lagrangian for heavy mesons. This coupling encodes non-perturbative QCD effects describing the decay of heavy vector particles into pseudoscalars, $V \rightarrow P\pi$.

Beside its direct physical relevance in the D system it is also of phenomenological importance to estimate this coupling non-perturbatively in the B system. I report on the (first) ongoing computation of $g_{VP\pi}$ using the non-perturbatively tuned relativistic heavy quark action (RHQ) to treat the c- and b-quark. We use domain wall light fermions and work on dynamical 2+1 DWF configurations as produced by the RBC/UKQCD collaboration.

Please, insert your presentation type (talk, poster)

talk

Primary author: FRITZSCH, Patrick (School of Physics & Astronomy, University of Southampton)

Co-author: Dr WITZEL, Oliver (BNL)

Presenter: FRITZSCH, Patrick (School of Physics & Astronomy, University of Southampton)

Session Classification: Parallel 19: Standard model parameters and renormalization

Track Classification: Standard model parameters and renormalization