



Contribution ID: 223

Type: Talk

## Radial distributions of the axial density and the $B^{*'} B\pi$ coupling

Friday, 17 July 2015 17:30 (20 minutes)

We will present our results for the radial distributions of the axial density in the heavy-light B meson in the static limit of HQET:  $\langle B(\vec{p}) | A_\mu(\vec{r}) | B^{*'}(\vec{p}', \lambda) \rangle$ . Here,  $r$  is the distance between the static heavy quark and the insertion of the axial current acting like a probe. Using the Generalized Eigenvalue Problem, we are able to isolate the first radial excitation of the vector  $B^*$  meson and the associated density. After discussing the results, we will show how these distributions allow us to determine the  $B^{*'} B\pi$  coupling at the kinematical point  $q^2 = 0 \neq m_{B^{*'}} - m_B$ . The simulations are performed using CLS gauge configurations with Nf=2 non-pertubatively  $O(a)$ -improved Wilson-Clover fermions and Heavy Quark Effective Theory in the static limit.

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**Session Classification:** Weak Decays and Matrix Elements

**Track Classification:** Weak Decays and Matrix Elements