Contribution ID: **365** Type: **Parallel Talk**

Angular analysis of $B \to D^{(*)}\ell\nu$ with hadronic tagging at $BABAR$.

Friday, 8 July 2022 17:17 (17 minutes)

Employing the full $BABAR$ dataset we extract form-factors for $\overline{B} \to D^{(*)}\ell^m\overline{\nu}_\ell$ using the hadronic tagging method. For $\overline{B} \to D\ell^m\overline{\nu}_\ell$, a two-dimensional angular analysis is performed in both q^2 and the lepton helicity angle. The two $B \to D$ form factors are determined using a joint fit with available lattice data. This enables checking flavor SU3 relations using comparisons with HPQCD $B_s \to D_s$ form-factors. An updated value of V_{cb} from $B \to D$ is also extracted. The $B \to D^*$ form-factor fits in the BABAR-19 publication [PRL123 (2019) 9, 091801] are updated, using newly available $w > 1$ lattice data (MILC/FNAL, HPQCD, JLQCD). The $BABAR$+lattice results are compared with the $BABAR$-only fits in BABAR-19. Finally, a combined $B \to D^{(*)}$ fit using the full $BABAR$ data and a HQET parametrization with higher order corrections in $1/m_{b,c}$ are described.

In-person participation

No

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Session Classification: Quark and Lepton Flavour Physics

Track Classification: Quark and Lepton Flavour Physics