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## Heavy-heavy current improvement for calculation of $\bar{B} \rightarrow D^{(*)} \ell \bar{\nu}$ semi-leptonic form factors using the Oktay-Kronfeld action – 1

Wednesday, July 27, 2016 9:00 AM (20 minutes)

The Oktay-Kronfeld action is a highly improved version of the Fermilab action and systematically reduces heavy quark discretization effects through  $\mathcal{O}(\lambda^3)$  in HQET power counting, for the heavy-light meson spectrum. To calculate  $\bar{B} \to D^{(*)} \ell \bar{\nu}$  semi-leptonic form factors using Oktay-Kronfeld heavy quarks, we need to improve the heavy quark currents to the same level. We report our progress in calculating the improvement coefficients for currents composed of bottom and charm quarks.

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