



Contribution ID: 725

Type: **Parallel session talk**

## Updated predictions for $R(D^{(*)})$ using the residual chiral expansion

*Tuesday 22 August 2023 17:37 (18 minutes)*

We present updated predictions of  $R(D^{(*)})$  using a modified power-counting within the heavy quark effective theory that results in a highly constrained set of second-order power corrections in the heavy quark expansion, compared to the nominal expansion. We analyze new experimental data to determine all  $B \rightarrow D^{(*)}$  form factors within and beyond the Standard Model at  $\mathcal{O}(\alpha_s, \alpha_s/m_{c,b}, 1/m_{c,b}^2)$ . We further present additional tests of the residual chiral expansion using baryonic decays to predict  $R(\Lambda_c)$  and determinations of the CKM matrix element  $|V_{cb}|$ .

### Collaboration / Activity

Phenomenology

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