Contribution ID: 36

New techniques to directly extract Wilson coefficients from the data.

Thursday 4 April 2019 12:40 (25 minutes)

Rare semileptonic $b \to s\ell^+\ell^-$ transitions provide some of the most promising framework to search for New Physics effects. Recent analyses of these decays have indicated an anomalous pattern in measurements of angular distributions of the decay $B^0 \to K^{*0}\mu^+\mu^-$ and in lepton-flavour- universality observables. A direct determination of the Wilson coefficients from data is shown to be possible via an amplitude analysis of $B^0 \to K^{*0}\mu^+\mu^-$ decays. Prospects for disentangling New Physics effects from non-local hadronic contributions are investigated, together with the determination of the difference of the Wilson Coefficients C_9 and C_{10} between electrons and muons in a simultaneous amplitude analysis of $B^0 \to K^{*0}\mu^+\mu^-$ and $B^0 \to K^{*0}e^+e^-$ decays.

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