

Indirect searches for new physics with heavy flavour decays at CMS

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Indirect probes to new physics searches beyond the standard model have been performed in rare decays and angular analyses in the heavy flavour sector in proton collisions with the CMS detector at the LHC. The flavour changing neutral current decays are interesting probes to new physics searches. The measurement of Bs and B0 mesons decaying into dimuons can only proceed through higher-order flavour changing neutral current processes, and are highly suppressed in the standard model (SM). The measured observable includes the decay branching fraction. The angular distributions of $b \rightarrow s l^+ l^-$ transition processes in heavy flavour decays have been studied. Angular analyses have been performed to determine the angular parameters as functions of the dimuon invariant mass squared to investigate any deviations from SM predictions that would signal new physics.

Collaboration

The CMS Collaboration

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