

## **LHCb: penguin decays: $B_s \rightarrow \phi \phi$ , $\phi \gamma$ , $\phi \mu \mu$ , $B_d \rightarrow K^* \mu \mu$**

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Rare loop induced decays of neutral B mesons are sensitive probe of NP. The reconstruction of the decays  $B_s \rightarrow \phi \phi$ ,  $\phi \gamma$ ,  $\phi \mu \mu$ ,  $B_d \rightarrow K^* \mu \mu$  at the LHCb experiment will be discussed. The measurement of some observables sensitive to lepton generations beyond the SM, such as the CPV in the radiative penguins, the forward-backward asymmetry in the  $B_d \rightarrow K^* \mu \mu$  and the CPV in the decays  $B_s \rightarrow \phi \phi$ ,  $B_s \rightarrow \phi \mu \mu$  will also be presented.

**Primary author:** SERRA, Nicola (NIKHEF)

**Presenter:** SERRA, Nicola (NIKHEF)

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