

## Measurement of BR( $B_s \rightarrow K_S K_S$ ) with Run 2 LHCb data

The decays  $B_{(s)}^0 \rightarrow K_S^0 K_S^0$  proceed via flavor changing neutral currents that are suppressed in the Standard Model and therefore provide greater sensitivity to new physics. The latest measurements of their branching fractions exhibit some tension with the SM.

Since the time of the existing measurement, the LHCb experiment has collected a large amount of data and has had several improvements to its online selection. This allows one to significantly improve the precision using Run 2 data.

The current work presents a status report on the ongoing measurement of the  $B_s^0 \rightarrow K_S^0 K_S^0$  and  $B^0 \rightarrow K_S^0 K_S^0$  branching fractions.

**Authors:** GUSEINOV, Kerim (EPFL - Ecole Polytechnique Federale Lausanne (CH)); Dr GARCIA MARTIN, Luis Miguel (EPFL - Ecole Polytechnique Federale Lausanne (CH)); MARCHEVSKI, Radoslav (École Polytechnique Fédérale de Lausanne (EPFL))

**Presenter:** GUSEINOV, Kerim (EPFL - Ecole Polytechnique Federale Lausanne (CH))