

# Measurements of charmless three-body decays

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We present an update of the analysis of  $B_d^0$  and  $B_s^0$  mesons to charmless three-body final states that include a  $K_S^0$  meson. The primary goal of the analysis is to search for the as-yet unobserved decay mode  $B_s^0 \rightarrow K_S^0 K^+ K^-$ . In addition, the branching-fraction measurements for the set of decay modes  $B_{(d,s)}^0 \rightarrow K_S^0 h^+ h'^-$  (where  $h$  and  $h'$  are each a pion or kaon), measured relative to  $B_0^d \rightarrow K_S^0 \pi^+ \pi^-$ , are updated. The analysis uses the data recorded by the LHCb experiment during Runs 1 and 2 of the LHC, corresponding to an integrated luminosity of 9 fb<sup>-1</sup>.

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