

## Overview of CPV parameter $\phi_s$ determination

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The one of main goals of the LHCb experiment is the measurement of the mixing-induced CP-violating phase  $\phi_s$  in the  $B_s$ - $B_s^*$  system. It has been measured exploiting the Run 1 data set, using several decay channels. The most recent results obtained analyzing  $B_s^0 \rightarrow J/\psi K^+ K^-$  candidates in the  $K^+ K^-$  mass region above the  $\phi(1020)$  resonance are presented. However, the precision of  $\phi_s$  is still limited by the statistics. Also the measurements using the same final state with the  $K^+ K^-$  mass at the  $\phi(1020)$  and  $B_s^0 \rightarrow J/\psi \pi^+ \pi^-$ , as well as using the  $B_s^0 \rightarrow \psi(2S) \phi$  decay will be discussed.

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