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LHCb results on CP violation in B0_{d/s} mixing and in the interference with decays (10' + 5')

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Measurements of CP violation in neutral B mesons mixing and in the interference with decays are excellent probes to search for physics beyond the Standard Model.
We present a selection of recent measurements performed by the LHCb experiment using the full Run 1 dataset. Among these:
the measurement of the semileptonic asymmetries, Asls and Asld, the measurements of the mixing-induced CP-violating phase ϕ_s in the $B_s^0 - \bar{B}_s^0$ system using $B_s^0 \to J/\psi hh$ (where $h = K$ or π) and $B_s^0 \to D_s^+ D_s^-$ decays, as well as several other modes including $B_s^0 \to \psi(2S)\phi$.
A good understanding of the pollution from sub-leading penguin topologies in the reference decay channels for the ϕ_s and $\sin 2\beta$ measurements can be achieved by measuring CP violation and polarization in the decay $B_s^0 \to J/\psi K^*$, CP violation and branching fraction of the decay $B^+ \to J/\psi \pi^+$ and time dependent CP violation in $B_s^0 \to J/\psi K_S^0$. These results together with constraints from $B^0 \to J/\psi \rho^0$ are used to put bounds on penguin pollution to ϕ_s and $\sin 2\beta$ measurements.

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