

## Time-dependent CPV in Bs decays at LHCb

*Wednesday, 8 May 2019 14:25 (15 minutes)*

Time-dependent CP-violation measurements of beauty mesons allow the determination of the mixing-induced CP-violating phases  $\phi_s$  and  $\beta$ . The measurement of the phase  $\phi_s$  in the  $B_s$ - $B_s^*$  system is one of the key goals of the LHCb experiment due to the sensitivity to physics beyond the Standard Model (BSM). The CP-violating phase is of interest in penguin dominated  $b \rightarrow s$  transitions, in addition to that of tree-level decays, which test the flavour changing neutral current interaction describing B mixing. Both are sensitive to BSM phases and provide valuable tests and constraints. We present new results of time-dependent CP violation using data collected at LHCb between 2011 and 2016.

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**Session Classification:** Parallel session 1

**Track Classification:** CP Violation in Hadrons and Leptons