

## CP violation studies on $B_s \rightarrow J/\psi \phi$ decays at the Tevatron

CP violation in  $B^0$  and  $B^+$  decays has already been extensively investigated at B-factories over last years, while the corresponding knowledge in the  $B^0_s$  system has been lacking so far.  $B^0_s$  mesons are produced with large cross section at the Tevatron collider. Following the measurement of the  $B^0_s$  to  $\bar{B}^0_s$  oscillation frequency in 2006, the D0 and CDF experiments has now investigated CP asymmetries in  $B^0_s$  meson decays. We report on the first flavor-tagged analyses from both experiments using  $B^0_s$  decays to  $J/\psi \phi$ . This channel is sensitive not only to the width difference  $\Delta\Gamma$  in the  $B^0_s$  system but also to  $\beta_s$ , one angle of the CKM unitarity triangle.