Three-body Decays of B_s Meson

Ying Li

Department of Physics, Yantai University, China

yingli@ytu.edu.cn

In this talk, I shall present our results of $\bar{B}_s^0 \to \bar{K}^0 h_1 h_2 (h = K, \pi)$decay modes using the factorization approach. Both the resonant and nonresonant contributions will be discussed. For the decays $\bar{B}_s^0 \to K^0 \pi^+ \pi^-$ and $\bar{B}_s^0 \to K^0 K^+ K^-$our results agree well with experimental data, and the former is dominated by the K*, while the latter one is dominated by the nonresonant contribution. Considering the flavor SU(3) symmetry violation, the sum of branching fractions of $\bar{B}_s^0 \to K^0 \pi^+ K^-$ and $\bar{B}_s^0 \to K^0 K^+ \pi^-$ could accommodate the data well too. It should be noted that both branching fractions are sensitive to the scalar density $\langle K\pi|sq|0\rangle$. Furthermore, the resonant contributions are dominated by the scalar K^*_0(1430). The direct CP asymmetries of these decays will also be investigated.