

CONTRIBUTION OF VECTOR RESONANCES
TO THE CP -ASYMMETRY OF THE NEUTRAL
 \bar{B} -MESON DECAY INTO A MUON-ANTIMUON
PAIR AND A NEUTRAL \bar{K}^* MESON

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S u m m a r y

Contributions of the processes $\bar{B}_d^0 \rightarrow \bar{K}^{*0} (\rightarrow K^- \pi^+) V$ with vector mesons $V = \rho(770), \omega(782), \phi(1020), J/\psi, \psi(2S)$, and others decaying into the $\mu^+ \mu^-$ pair to the CP -asymmetry in the decay $\bar{B}_d^0 \rightarrow \bar{K}^{*0} (\rightarrow K^- \pi^+) \mu^+ \mu^-$ induced by the flavor-changing neutral currents are calculated. For the description of the transition $b \rightarrow s \mu^+ \mu^-$, the most general form of the effective weak-interaction Hamiltonian is applied. Predictions are made for the CP -asymmetry of the decay $\bar{B}_d^0 \rightarrow \bar{K}^{*0} (\rightarrow K^- \pi^+) \mu^+ \mu^-$ in the framework of the standard model, as well for two scenarios of new physics. The obtained results are compared with experimental data of the LHCb Collaboration.