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Angular Time-dependent Analyses of the Decays $B_d \to J/\psi K^{0*}$ and $B_s \to J/\psi \phi$ at D0 G. ALEJANDRO GARCIA-GUERRA, CINVESTAV-Mexico, D0 COLLABORATION — We report preliminary results on the B_d untagged angular time-dependent analysis in the exclusive decay channel $B_d \to J/\psi (\to \mu^+ \mu^-) K^{0*} (\to K^{\pm} \pi^{\mp})$. We use approximately 2.8 fb⁻¹ of data collected at the D0 detector during 2003-2007. From our measurements we are able to measure the angular and the lifetime parameters $(|A_0|^2, |A_{\parallel}|^2 \delta_1, \delta_2 \text{ and } \tau_d)$ that describe this decay in the transversity basis. We performed the same analysis for the untagged decay $B_s \to J/\psi (\to \mu^+ \mu^-) \phi (\to K^+ K^-)$ assuming no CP violation, and measured the parameters $|A_0|^2, |A_{\parallel}|^2 \delta_2 - \delta_1, \Delta\Gamma_s \text{ and } \tau_s$. Finally, we report the lifetime ratio $\tau_s/\tau_d = 1.035 \pm 0.060 (\text{stat}) \pm 0.004 (\text{syst})$. We compare our measurements with the theoretical predictions for the factorization method and the SU(3) symmetry for these decays.

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