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 B^+ , B^0 , B_s^0 , Λ_B lifetimes and lifetime ratios. CHUNLEI LIU, University of Pittsburgh, CDF COLLABORATION — We present new, high-statistics measurements of b hadron lifetimes from exclusive decays containing a J/ψ selected using a dimuon trigger in CDF. The analysis uses about 800 pb⁻¹ of data from Run II of the Tevatron collider. In addition to the channels $B^+ \to J/\psi K^+$, $B^0 \to J/\psi K^{0*}$, $B^0 \to J/\psi K_s^0$, which are well measured at B factories, we measure lifetimes of Λ_b and B_s^0 , (unique to the Tevatron) in the channels $B_s^0 \to J/\psi \phi$ and $\Lambda_b \to J/\psi \Lambda^0$. Systematic errors in the ratios of lifetimes are minimized by the consistent use of the J/ψ vertex across all decay channels, to estimate proper decay time.

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