

Abstract Submitted
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B_s^0 lifetime measurement from the decay $B_s^0 \rightarrow J/\psi f_0(980)$ JESUS
ORDUNA, Rice University, D0 COLLABORATION — The B_s^0 meson is in general
a superposition of CP-even and CP-odd states, which are expected to have different
lifetimes. The decay $B_s^0 \rightarrow J/\psi f_0(980)$ must be a pure CP-odd (orbital angular
momentum $L = 1$) state due to conservation of angular momentum. Measurement
of the B_s^0 lifetime from this decay should therefore yield information on the CP-odd
 B_s^0 lifetime. We report on the $B_s^0 \rightarrow J/\psi f_0(980)$ lifetime measurement using the
full Run II dataset collected by the D0 detector at the Fermilab Tevatron collider.

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