

Abstract Submitted
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Lifetime in $B_s^+K^-$ decay NICOLA POUNDER, Oxford, UK, CDF COLLABORATION — $B_s \rightarrow K^+K^-$ is nearly entirely a CP even eigenstate, so the Bs lifetime measured in this decay should be short compared to the average Bs lifetime. At run II of the Fermilab Tevatron, CDF's hadronic trigger will collect a sample of $B_s^+K^-$ events from p pbar collisions at $\sqrt{1.96}$ TeV. This trigger may, however, bias a measurement of lifetime. We present an approach to correct for this bias and discuss the challenges of separating this mode from the physics decay backgrounds and prospects for a lifetime measurement.

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