Abstract Submitted for the APR06 Meeting of The American Physical Society

Study of the B_c lifetime via the decay $B_c \to J/\psi\mu\nu X$ LEAH WELTY-RIEGER, Indiana University, DZERO COLLABORATION — The B_c meson is unique as a meson in that it contains two different, yet heavy quarks, resulting in a lifetime that is expected to be shorter than the other *b* hadrons. Using approximately 1 fb⁻¹ of data collected with the DØ detector at the Fermilab Tevatron during Run II, the B_c meson in the semileptonic mode $B_c^{\pm} \to J/\psi\mu^{\pm}\nu X$ is studied. Preliminary results on the measured lifetime of this particle are presented.

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Date submitted: 12 Jan 2006

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