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Search for the rare decay $B^0_s \to \mu^+\mu^-$ at D0 MICHELLE PREWITT, Rice University, D0 COLLABORATION — The decay $B^0_s \to \mu^+\mu^-$ is heavily suppressed in the standard model, but many scenarios for physics beyond the standard model predict large enhancements in this process. We report an updated search for this decay using data collected by the D0 detector at the Fermilab Tevatron collider. We use the full Run II data set, corresponding to approximately 10.5 fb⁻¹ of integrated luminosity in $p\bar{p}$ collisions at \sqrt{s} =1.96 TeV.

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