

Abstract Submitted
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The Luminosity Measurement for Tevatron Run II at Fermilab's D0 Experiment GREGORY SNOW, University of Nebraska-Lincoln, D0 COLLABORATION — At a hadron collider like Fermilab's Tevatron, an essential ingredient in all cross section measurements is the integrated luminosity that is used to normalize the data sample. In the D0 Experiment, the proton-antiproton luminosity is measured by counting inelastic interactions with a finely-segmented array of scintillators surrounding the beam pipe on both sides of the interaction region. D0 employs the “counting zeros” technique to convert the rate of inelastic interactions to absolute luminosity. In this presentation, D0's Luminosity Monitor system, the luminosity measurement technique, and the various ingredients in the uncertainty assigned to the luminosity measurement will be described.

Marco Verzocchi
Fermi National Accelerator Laboratory

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