

Measurement of beauty production from dimuon events at HERA

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Beauty production in events containing two muons in the final state has been measured with the ZEUS detector at HERA II. A low transverse-momentum threshold for muon identification, in combination with the large rapidity coverage of the ZEUS muon system and the upgraded ZEUS tracker, gives access to almost the full phase space for beauty production. The total cross section for beauty production in ep collisions at $\sqrt{s} = 318$ GeV has been measured. Differential cross sections and a measurement of $b\bar{b}$ correlations are also obtained. All are compared to previous beauty cross-section measurements, Monte Carlo models and next-to-leading-order QCD predictions. The previous ZEUS measurements are confirmed with higher precision.

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