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Isolated Leptons and Missing Transverse Momentum and Measurement of W Production at HERA

Content :
A search for events containing an isolated electron or muon and missing transverse momentum produced in e±p collisions is performed with the H1 and ZEUS detectors at HERA. The data were taken in the period 1994-2007 and correspond to an integrated luminosity of 0.98 fb^-1. The observed event yields are in good overall agreement with the Standard Model prediction, which is dominated by single W production. In the e+p data, at large hadronic transverse momentum PT(X) > 25 GeV, a total of 23 events are observed compared to a prediction of 14.0 ± 1.9. The total single W boson production cross section is measured as 1.06 ± 0.16 (stat.) ± 0.07 (sys.) pb, in agreement with an SM expectation of 1.26 ± 0.19 pb.

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These results are presented on behalf of the H1 and ZEUS Collaborations