Heavy vector meson production at HERA

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Abstract

The production of J/ψ, $\psi(2S)$ and Υ mesons in positron–proton collisions at a centre-of-mass energy of 300 GeV has been studied by the H1 and ZEUS experiments at the HERA collider. Results are obtained over large ranges in the exchange photon virtuality, the virtual photon-proton centre-of-mass energy, and the inelasticity of the production. Models incorporating perturbative QCD calculations are confronted with the experimental data.