Exclusive production of vector mesons in pp and $p\bar{p}$ collisions

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The amplitude for photoproduction $\gamma p \rightarrow V p$ is calculated in a pQCD k_T- factorization approach. I will present results for vector mesons: ρ, ω, ϕ, J/Ψ and Υ. The total cross section for diffractive mesons production as a function of energy and photon virtuality. We also discuss the 2S/1S ratio in difractive J/Ψ and Υ production. I will present dependence on the mass of the quark for light mesons and discuss the ratio of σ_L/σ_T. We compare our results with a HERA data in photon-proton collisions.

The amplitude for $\gamma p \rightarrow V p$ is used to predict the cross section for exclusive production in proton-proton and proton-antiproton collisions. I will present distribution in rapidity, transverse momentum of vector mesons and azimuthal angle between outgoing protons for RHIC, Tevatron and LHC energies. The absorption effects are discussed.

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