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Scale Issues in High-Energy Diffractive Vector-Meson Production

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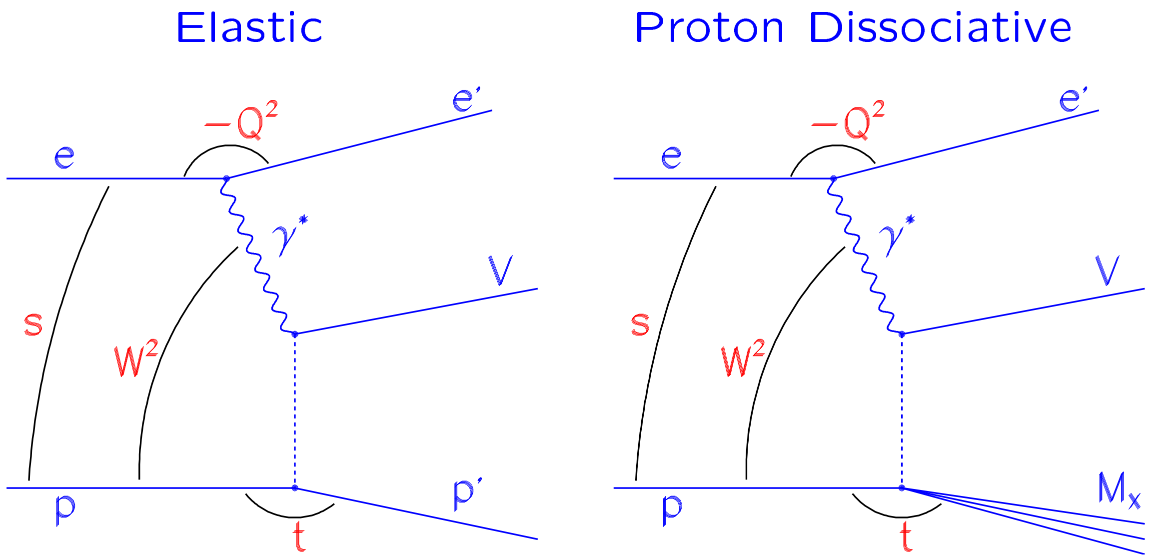
Diffractive Electroproduction of Vector Mesons



$\sqrt{s}$: Center–of–mass energy of e–p system (300 GeV)

W: Center–of–mass energy of γ^*–p system (20 – 240 GeV)

Q^2: Photon Virtuality (10^{-10} – 20 GeV^2)

t: Square of Momentum Transfer at the Proton Vertex ($|t| < 13$ GeV^2)

Can the hard scale necessary for perturbative QCD calculations be set by
either Q^2, M_V^2, or $|t|$??

What experimental signatures for the region of pQCD validity ?