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## Vector meson electro-production within the energy-dependent hot-spot model

We will present a model in which we treat electro-production of light and heavy vector mesons using the color dipole approach including the quantum fluctuations of the target structure. These fluctuations are generated by hot spots, randomly placed in the transverse plane. The number of hot spots grows with decreasing Bjorken- $x$ , which brings energy dependence of the target structure into this model. Our model successfully reproduces the exclusive and dissociative vector meson photo-production data from H1 and ALICE. Moreover, it predicts that once the proton structure starts to resemble the gluon saturation picture the dissociative cross section reaches a maximum and then decreases steeply with energy. We will show, that this signal is present also in electro-production cross section and it has clear mass and scale dependence measurable at LHeC energies.

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