

Critical Phenomena in DIS

Saturation in deep inelastic scattering (DIS) and deeply virtual Compton scattering (DVCS) is associated with a phase transition between the partonic gas, typical of moderate x and Q^2 , and, a partonic fluid, created at increasing Q^2 and decreasing Bjorken x . In the statistical interpretation of DIS, the large- x , $(1-x)^n$ factor in the structure function (SF) is associated with a perfect gas, while the low-, Regge-behaved factor $x^{b(Q^2)}$ is responsible for the deviation from the perfect gas and ultimately leads to a gas-liquid phase transition.

Primary author: Prof. JENKOVSKY, Laszlo (Bogolyubov Institute for Theoretical Physics, National Academy of Sciences of Ukraine)

Presenter: Prof. JENKOVSKY, Laszlo (Bogolyubov Institute for Theoretical Physics, National Academy of Sciences of Ukraine)