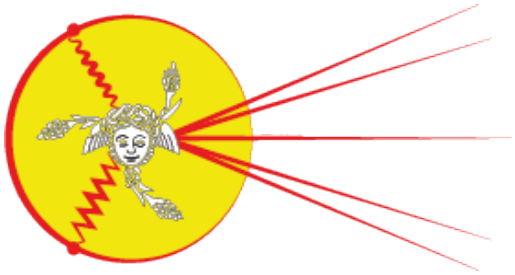

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Novel approach to non-perturbative inputs for parton distributions

Saturday, 3 September 2016 16:00 (20 minutes)

Parton distributions in hadrons are usually constructed in the framework of QCD factorization in terms of convolutions of perturbative contributions and non-perturbative inputs. We study such inputs for gluon and quark distributions in both polarized and non-polarized hadrons. First, we derive general restrictions on the inputs following from the
requirement of convergence of the factorization convolutions. Then we use those restrictions as criteria for modeling the inputs and propose the Resonance Model for them. Our model is based on the simple reasoning: After emitting an active parton off the colliding hadron, the ensemble of remaining partons (spectators) becomes unstable, so it can be expressed in terms of resonances.

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