

Discussion topics

1. The nonperturbative origin of intrinsic strange, charm and bottom quarks in the nucleon at large light-cone momenta x
2. The breakdown of pQCD factorization theorems due to the lensing effects of initial- and final-state interactions
3. Important corrections to pQCD scaling for inclusive reactions due to processes in which hadrons are created at high transverse momentum directly in the hard processes and their relation to the baryon anomaly in high-centrality heavy-ion collisions
4. The nonuniversality of quark distributions in nuclei; light-front holography – a relativistic, color-confining, first approximation to QCD based on AdS/QCD and its correspondence to light-front quantization
5. The principle of maximum conformality – a method which determines the renormalization scale and gives scheme-independent predictions – the elimination of the renormalization scale ambiguity using the PMC has important consequences for top quark production at colliders
6. The replacement of quark and gluon vacuum condensates by "in-hadron condensates", and how this resolves the conflict between the QCD vacuum and the cosmological constant