

The 187th HENPIC seminar by Prof. Jian Zhou

Title: High energy asymptotic behavior of gluon OAM

Abstract: Gluon generalized parton distribution (GPD) E_g plays an important role in nucleon spin sum rules. In this talk, I will discuss the small- x evolution of gluon GPD E_g . We found that E_g at vanishing skewness exhibits the Regge behavior identical to the BFKL Pomeron despite its association with nucleon helicity-flip processes. We also consider the effect of gluon saturation and demonstrate that E_g gets saturated in the same way as its helicity-nonflip counterpart H_g . Our result has a direct impact on the modeling of E_g as well as the small- x contribution to nucleon spin sum rules.

Summary