



## The 187th HENPIC seminar

# High energy asymptotic behavior of gluon OAM

Speaker: Prof. Jian Zhou (周剑)

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### 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 non-flip 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.

### ABOUT THE SPEAKER:

Jian Zhou, Professor at Shandong University, since 2016. He obtained Ph.D. in 2009 from Shandong University; held postdoctoral positions at Temple University, Regensburg University and NIKHEF during 2009-2016. His research interest focuses on perturbative QCD and its applications in high energy nuclear physics, covering spin physics, small  $x$  physics, TMD factorization, collinear high-twist factorization, UPC physics and parton shower algorithm.



**HENPIC website:** <https://indico.ihep.ac.cn/event/11115>

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