

# First Glimpse of Glue Parton Distribution Function from Lattice QCD

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Parton distribution functions (PDFs) are central to the study of the hadron scattering cross sections with (within) collinear factorization. Recently, the Large-momentum effective theory (LaMET) introduced the quasi-PDF, providing the possibility to explore the entire PDF instead of just the first few moments. Since then, a lot of studies have been done on the quark quasi-PDFs. Compared to the quark PDF, the glue PDF is less studied in theory but its contribution is dominant in the production of Higgs bosons and heavy quarkonium. Here we provide the first numerical investigation of the glue quasi-PDF on the lattice with preliminary results.

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