

Proton spin decomposition

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We calculate the intrinsic quark and gluon spin contribution to the total proton spin using overlap fermions on Domain-wall ensembles. We find that the total quark spin, with the axial Ward identity satisfied, is ~40%, and the glue spin contribution is ~50% if the matching procedure in LaMET is neglected.

The imperative non-perturbative renormalization to obtain the quark and glue angular momentum fractions will be also introduced in the talk.

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