

Gluon contribution to the nucleon spin and the role of Orbital Angular Momentum

We have calculated

$\Delta \Sigma$ over g in the context of valon representation of hadrons and have shown that although it may be small, the gluon contribution to the nucleon spin can be sizable. The calculation is done for every kinematics that there is data, including the very recent releases from HERMES and COMPASS collaborations. It is shown that the first moment of gluon polarization in nucleon is large and grows with Q^2 . To compensate this growth it is necessary that to have a large and negative value for the orbital angular momentum of partons.

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