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Calculating the glue helicity on the lattice with comments about renormalization

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We discuss recent preliminary results for a lattice calculation of the glue helicity Δ_G in the Coulomb gauge. We have used the gauge field tensor defined from the overlap Dirac operator. The calculation is carried out with valence overlap quarks on 2+1 DWF gauge configurations on the $24^3 \times 64$ lattice which corresponds to a pion mass of 330 MeV. Finally, we discuss the perturbative renormalization matching of this operator to the continuum \overline{MS} scheme at one-loop order in the Coulomb gauge.

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