

# Monopole and monopoleless components of the lattice gauge field in the maximal Abelian gauge

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The lattice gauge field is decomposed into the monopole and monopoleless components after the Maximal Abelian gauge is fixed. The interaction potential between static charges is calculated for each component and their sum is compared with the full non-Abelian static potential. A good agreement is found in both SU(2) and SU(3) gluodynamics and in two-color QCD. Implications of this result are discussed.

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