

Monopole condensation in two-flavour Adjoint QCD

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Abstract: Two distinct phase transitions occur at different temperatures in QCD with adjoint fermions (AQCD): deconfinement and chiral symmetry restoration. In this model, quarks do not explicitly break the center $Z(3)$ symmetry and therefore the Polyakov loop is a good order parameter for the deconfinement transition. We study the relation between these two transitions and monopole condensation by inspecting the expectation value of an operator which creates a monopole. Such a quantity is expected to be an order parameter for the deconfinement transition as in the case of fundamental fermions.