

**The dual Meissner effect and finite temperature phase transition in
quenched SU(2)QCD**

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Abstract: In order to understand the mechanism of color confinement based on the dual superconductor picture, we apply the Landau gauge-fixing to quenched SU(2) QCD at finite temperature and study the profiles of electric field and magnetic displacement current through the confinement-deconfinement phase transition in the presence of static quark-antiquark pair. We also investigate the correlation between the dimension-2 gluon condensate $\langle A^2 \rangle$ and the QCD-string around the critical temperature.