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The QCD Phase Transition in a Strong Magnetic Background

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We investigate the properties of the deconfining/chiral restoring transition for two flavor QCD in presence of a uniform background magnetic field. We adopt a standard staggered discretization of the fermion action, different values of the bare quark mass corresponding to pion masses ranging from 200 to 500 MeV, and magnetic fields up to $eB = 1 \text{ GeV}^2$. We present first results regarding the dependence of the deconfinement and chiral transition temperature and strength on the magnetic field.

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talk

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