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Confinement-deconfinement transition in dense two-color QCD

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In this report we study the properties of the dense SU(2) QCD. The lattice simulations are carried out with improved gauge action and smaller lattice spacing as compared to our previous work. This allowed us to approach closer to the continuum limit and reach larger densities without lattice artifacts. We measured string tension and Polyakov loop as functions of chemical potential and temperature. At sufficiently large baryon density and zero temperature we observe confinement/deconfinement transition which manifests itself as a vanishing of the string tension and rising of the Polyakov loop.

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