



Analytic approach to the study of the electric-magnetic asymmetry of the dimension 2 condensate

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Recent work by Chernodub and Ilgenfritz has uncovered non-trivial temperature dependence in the electric-magnetic asymmetry in the dimension 2 condensate. This asymmetry measures the difference between the spatial and the temporal components of the condensate. Lattice computations have shown very interesting phenomena. The asymmetry shows a jump at the deconfinement phase transition, beyond which it approaches its perturbative value. At temperatures lower than the critical temperature, it shows an exponential behavior with in the exponent a mass smaller than the lowest glueball mass. In this talk we present research done on this asymmetry, using a generalization of analytical methods developed to study it. The purpose is to shed more insight on the findings of Chernodub and Ilgenfritz.

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