XIIth Quark Confinement and the Hadron Spectrum



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Deconfinement and chiral transition in AdS/QCD wall models supplemented with a magnetic field

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We discuss the phenomenon of (inverse) magnetic catalysis for both the deconfinement and chiral transition. We discriminate between the hard and soft wall model, which we suitably generalize to include a magnetic field. Our findings show a critical deconfinement temperature going down, in contrast with the chiral restoration temperature growing with increasing magnetic field. This is at odds with contemporary lattice data, so the quest for a holographic QCD model capable of capturing inverse magnetic catalysis in the chiral sector remains open.

We outline further directions in this research.

This talk is based on joint work with Diego Rocha Granado and Thomas Mertens (see http://inspirehep.net/record/1404170?ln=en).

Summary

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