



Contribution ID: 133

Type: Talk

Effective string description of the reconfined phase in the trace deformed $SU(2)$ Yang-Mills theory in $(2+1)$ dimensions.

Wednesday, 31 July 2024 12:35 (20 minutes)

We study the behaviour of the flux tube in the reconfined phase of the trace deformed $SU(2)$ Yang-Mills theory in $(2+1)$ dimensions. In this phase the Polyakov loop has a vanishing expectation value (and center symmetry is recovered) even at high temperatures. We study, by means of numerical simulations, the confining potential between two Polyakov loops and show that its behaviour is very different from that of usual confining gauge models and shows a remarkable agreement with the predictions of the so called “rigid string” in the limit in which the rigidity term (which is driven in the action by a term proportional to the square of the extrinsic curvature of the string) is very large and is the dominant contribution in the action.

Primary authors: CASELLE, Michele (Università di Torino); BONATI, Claudio (Università di Pisa); NEGRO, Alessio (Physics Dep. Torino University); PANFALONE, Dario (Univesita' di Torino); VERZICHELLI, Lorenzo (Università di Torino, INFN sezione di Torino)

Presenter: CASELLE, Michele (Università di Torino)

Session Classification: Vacuum structure and confinement

Track Classification: Vacuum Structure and Confinement