

QPT 2021

Guiyang, China

Contribution ID: 125

Type: **not specified**

Yang-Mills theory with a nonvanishing background field at finite temperature via the fRG approach

The Yang-Mills theory with background field has been studied at finite temperature with the functional renormalization group approach. The flow equations for correlation functions with a nonvanishing temporal gluon background field have been solved with the Landau-DeWitt gauge, and the magnetic, electric gluon propagators, ghost propagator at different eigenvectors have been obtained at finite temperature. We also integrate-out the flow of Polyakov loop potential, and the relevant confinement-deconfinement phase transition has been investigated. The scaling and decoupling solutions with the background field have also been discussed.

Topics

Other related physics

Primary author: 黄, 闯 (大连理工大学)

Co-authors: Ms SCHNEIDER, Coralie (Heidelberg University); Ms IHSEN, Friederike (Heidelberg University); Prof. PAWLOWSKI, Jan Martin (Heidelberg University); Dr WINK, Nicolas (Heidelberg University); 付, 伟杰 (大连理工大学); 谈, 阳阳 (大连理工大学)

Presenter: 黄, 闯 (大连理工大学)