



Contribution ID: 3

Type: **Invited Talk**

## **Non-perturbative study of spectral function in light of Quark-Gluon Plasma**

This talk will contain studies of properties quark-gluon plasma, using some non-perturbative techniques. It will contain a brief introduction of quark-gluon plasma (QGP) and discussion on various signatures like Dilepton Production Rate (DPR) and Quark Number Susceptibilities (QNS) along with a motivation for this work. In the main work Operator Product Expansion (OPE), Gribov-Zwanziger (GZ) action and hot magnetized medium will be used to incorporate the non-perturbative dynamics of QCD. The impact of these non-perturbative effects on the DPR and QNS will be studied and its important consequences will be discussed. Most of the non-perturbative results will be compared with those of the perturbative ones and lattice QCD.

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