

## Effect of colorlessness condition on phase transition from Hadronic Gas to partonic plasma

### ABSTRACT

One of the most important phase transition in physics is the Deconfinement Phase Transition in thermal Quantum ChromoDynamics. Due to the confinement property, we study the effect of colorlessness condition during the Deconfinement Phase Transition from a Hadronic Gas to a Quark-Gluon Plasma. We investigate the behavior of some thermodynamical quantities of the system such as the energy density and the pressure, the colorlessness condition and without colorlessness.

**Keyword:** Phase transition; Deconfinement Phase Transition; Confinement; Hadronic Gas; Partonic plasma; Colorlessness condition