

## **SU(3) Gluon Condensate in Flux Tube and Glueball**

Abstract

The distribution of a gluon condensate in a glueball and flux tube is calculated. The SU(3) gauge fields are separated in two parts: the [SU(2) subset SU(3)] subgroup and the [coset SU(3)/SU(2)]. For the calculations an approximate non-perturbative Heisenberg's quantization technique is applied. In this approximate approach the gluon condensate in:

1. Glueball described by two scalar fields;
2. Flux tube described by SU(2) gauge field with broken gauge symmetry and one scalar field.

In this approach two-point Green's functions are a bilinear combination of scalar fields and four-point Green's functions are the product of two-point Green's functions.