

The confining color field in the SU(3) gauge theory

Thursday, 12 December 2019 18:15 (15 minutes)

The spatial distribution of the chromoelectric field in presence of a static quark-antiquark pair in the SU(3) gauge theory is determined from the numerical simulations. The resulting field can be decomposed into the perturbative part, and the nonperturbative confining field, the last being oriented almost completely along the quark-antiquark line. A way of performing this decomposition using irrotational property of the perturbative field is proposed. The estimation of the string tension and of the parameters of the nonperturbative flux tube is then obtained from the subtracted field.

Primary authors: PAPA, Alessandro (CS); CUTERI, Francesca (Goethe Universität - Frankfurt am Main); COSMAI, Leonardo (BA); BAKER, Marshall (University of Washington, Seattle, USA); CEA, Paolo (BA); CHELNOKOV, Volodymyr (Istituto Nazionale di Fisica Nucleare)

Presenter: CHELNOKOV, Volodymyr (Istituto Nazionale di Fisica Nucleare)

Session Classification: Session 8