Theory challenges for LHC physics



Contribution ID: 79 Type: not specified

Dynamical gluon mass and linear confinement

Friday 24 July 2015 17:20 (20 minutes)

We investigate a novel non-perturbative QCD running coupling motivated by confinement and asymptotic freedom.

This coupling is formulated in terms of a gluon mass function analogous to that of Dyson-Schwinger approaches. We calculate the corresponding potential à la Richardson and are able to reproduce the Cornell potential. The resulting gluon mass is close to the Dyson-Schwinger parameter.

Author: Dr AYALA, César (Department of Theoretical Physics and IFIC, University of Valencia and CSIC, E-46100, Valencia, Spain)

Presenter: Dr AYALA, César (Department of Theoretical Physics and IFIC, University of Valencia and CSIC, E-46100, Valencia, Spain)

Session Classification: CALC2015 Workshop