

Lattice signals of gluon mass generation in QCD

Lattice simulations have established that the gluon propagator in the linear covariant gauges saturates to a finite value at the origin, signaling the emergence of a gluon mass scale in QCD. The Schwinger mechanism, a framework for generating masses for gauge Bosons without breaking the gauge symmetry of the underlying theory, provides an explanation of this observation. We briefly review how the Schwinger mechanism is activated in QCD and show how lattice results for the propagators and vertices of the theory confirm that this is the mechanism responsible for gluon mass generation.

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