The complex structure of strong interactions in Euclidean and Minkowski space

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Type: Invited talk

The gluon propagator at finite temperature and density

Tuesday 27 May 2025 11:15 (45 minutes)

During this talk we will present recent results on the Landau-gauge infrared gluon propagator in Euclidean space at finite temperatures and baryonic densities, as computed within the framework of the screened massive expansion of QCD by making use of a simple model for the infrared quark masses. We will discuss the behavior of the propagator and its sensitivity on the deconfinement phase transition and on the parameters of the expansion. At the end of the talk we will also provide some insight into ongoing research concerning the analytic structure of the propagator.

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