

QCD Vacuum Topology and Glueballs

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In this talk we discuss the impact of topological QCD vacuum fields on the low-lying glueball spectrum. In particular, we show that an essential part of the pertinent nonperturbative information can be obtained analytically and model-independently by combining a non-perturbative operator product expansion and dispersive sum-rule techniques. The topological physics turns out to have crucial impact on a rather diverse pattern of glueball properties. We present new predictions for the spin-0 glueball masses and decay constants, estimate the scalar glueball width, and discuss several implications for glueball structure and experimental glueball searches.