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Adjoint chromoelectric and chromomagnetic correlators with gradient flow

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When QCD is described by a non-relativistic EFT, operators consisting of gluonic correlators of two chromoelectric or -magnetic fields will often appear in descriptions of quarkonium physics. At zero T, these correlators give the masses of gluelumps and the moments of these correlators can be used to understand the inclusive P-wave decay of quarkonium. At finite T these correlators definite the diffusion of the heavy quarkonium. However, these correlators come with a divergent term in lattice spacing which needs to be taken care of. We inspect these correlators in pure gauge theory with gradient flow smearing, which should allow us to reduce and remove the divergence more carefully. At this talk we focus on the effect of gradient flow to these correlators and the reduction of this divergence.

Topical area

Vacuum Structure and Confinement

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