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## Mitter – Yang-Mills correlation functions from the functional renormalization group

*Tuesday 23 February 2016 17:25 (20 minutes)*

We investigate SU(3)-Yang-Mills theory in a systematic vertex expansion scheme for the effective action. Particular focus is put on the dynamical creation of the gluon mass gap at non-perturbative momenta and the consistent treatment of quadratic divergences. The gluon and ghost propagators as well as the momentum-dependent ghost-gluon, three-gluon and four-gluon vertices are calculated self-consistently and the apparent convergence of the expansion scheme is discussed by comparing to corresponding lattice QCD results.

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**Session Classification:** Contributed talks