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# Variational and Dyson-Schwinger Equations of QCD

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Dyson-Schwinger equations are an established, powerful non-perturbative tool to investigate QCD. In the Hamiltonian formulation of a quantum field theory they allow variational calculations with non-Gaussian wave functionals: by means of DSEs the various  $n$ -point functions, needed in expectation values of observables like the Hamilton operator, can be thus expressed in terms of the variational kernels of our trial ansatz. Equations of motion for these variational kernels are derived by minimizing the energy density and solved numerically. We determine the chiral condensate from the renormalized quark propagator and investigate the quark-gluon vertex.

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