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## Mean field approximation for effective theories of lattice QCD

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For the exploration of the phase diagram of QCD, effective Polyakov loop theories derived from lattice QCD provide a valuable tool in the heavy quark mass regime. In practice, the evaluation of these theories is complicated by the appearance of long-range and multipoint interaction terms. On the other hand, it is well known that for theories with such kind of interactions mean field approximations can be expected to yield reliable results. Hence, the evaluation of the effective theories within the mean field framework is discussed.

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