

Partially quenched QCD with a chemical potential

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Abstract: I will show how one can derive the low energy partition function and Dirac eigenvalues of QCD with different chemical potentials for the sea and valence quarks from a chiral random matrix theory. The results can also be extended to complex (and purely imaginary) chemical potential. I will also discuss possible applications such as fitting to low energy constants and understanding the phase diagram of the partially quenched theories.