

Two Loop Partially Quenched and Finite Volume Chiral Perturbation Theory Results

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Abstract: I will present the calculation at two loops in Partially quenched chiral perturbation theory of masses and decay constants of the charged mesons for all relevant quark mass combinations and for the case with two and three sea quarks. These are partly published in Phys.Rev.D71:094502,2005 [hep-lat/0501014] and Phys.Rev.D70:111503,2004[hep-lat/0406017].

I will also discuss some ongoing work of finite volume corrections at two loops for the quark condensate as well as a Luescherlike finite volume formula for it.