Meson Effects on the Chiral Condensate at Finite Density

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Abstract: Meson corrections on the chiral condensate up to next-to-leading order in a $1/N_c$ expansion at finite density are investigated in the NJL model with explicit chiral symmetry breaking. Compared with mean-field results, the chiral phase transition is still of the first order while the properties near the critical density for chiral phase transition are found to change significantly.

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