

Correlations and fluctuations in a magnetized PNJL model with and without inverse magnetic catalysis effect

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The correlation $\chi_{11}^{BQ}, \chi_{11}^{BS}, \chi_{11}^{QS}$ and fluctuations $\chi_2^{B,Q,S,T}, \chi_4^{B,Q,S,T}$ of baryon number B , electric charge Q , strangeness number S and temperature T are investigated in a Polyakov loop extended Nambu-Jona-Lasinio (PNJL) model at finite temperature and magnetic field. The inverse magnetic catalysis (IMC) effect is introduced through the magnetic field dependent parameters $G(eB)$, $K(eB)$ or $T_0(eB)$. We will discuss the effect of external magnetic field on these quantities, and make comparison of the results in the cases with and without IMC effect.

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