— 第880回九大原子核セミナー —

講師：Marco Ruggieri (京都大学基礎物理研究所)

演題：Quantum Chromodynamics in a Strong Magnetic Background

日時：1月12日(水) 10:30〜

† 今回は通常と時間と場所が異なりますのでご注意ください。

場所：理学部 大会議室

概 要

I review the status of the recent studies about deconfinement and chiral symmetry restoration in a strong magnetic background, at high temperature and/or large baryon density. I will focus on my recent results, obtained within a Nambu–Jona-Lasinio model with the Polyakov loop, taking into account a possible dependence of the coupling on the Polyakov loop expectation value, as suggested by the recent literature. The main result is that, within this model, the deconfinement and chiral crossovers of QCD in strong magnetic field are entangled even at the largest value of eB considered, namely $eB = 30m_\pi^2$ (that is, $B \approx 6 \times 10^{15}$ Tesla). The amount of split that we measure is, at this value of eB, of the order of 2%.

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