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Casimir effect in magnetized dense QCD

Tuesday 27 August 2024 11:00 (20 minutes)

One of the most important question in modern nuclear physics is what kind of matter phases are realised in dense QCD. While there have been many studies of spatially homogeneous matter phases, inhomogeneous chiral condensed phases have attracted much attention in recent years. One of these inhomogeneous chiral condensed phases is the dual chiral density wave (DCDW) phase, in which both scalar and pseudoscalar condensation is position-dependent. Such inhomogeneous phases can be realised inside neutron stars because the magnetic field inside the neutron star makes the inhomogeneous phases more robust by breaking rotational and isospin symmetries. In this talk, we will discuss several fundamental physical quantities in quark matter under magnetic fields, including the DCDW phase, e.g. the Casimir effect.

Internet talk

Yes

Is this an abstract from experimental collaboration?

No

Name of experiment and experimental site

N/A

Is the speaker for that presentation defined?

No

Details

N/A

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