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Type: **Poster presentation**

Charged pion condensation in dense quark matter with chiral imbalance

Recently it has been shown that chiral imbalance generates charged pion condensation in dense baryonic/quark matter. It was also shown that chiral imbalance generates the phenomenon of charged pion condensation in dense baryonic/quark matter even in the case of electrically neutral quark matter in beta equilibrium (with respect to the weak interaction), which is interesting in the context of the astrophysics of neutron stars.

It is known that chiral imbalance can occur in high energy experiments of the collision of heavy ions, due to temperature and sphaleron transitions. Our studies show that different types of chiral imbalance can occur in the cores of neutron stars or in heavy ion experiments, where large baryon densities can be reached, due to another phenomena - the so-called chiral separation and chiral vortical effects.

The influence of two types of chiral imbalance on charged pion condensation phenomenon have been considered.

Part of the talk is

based on:

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Is this abstract from experiment?

No

Name of experiment and experimental site

N/A

Is the speaker for that presentation defined?

Yes

Details

N/A

Internet talk

Maybe

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