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Particle Theory Seminar of IJCLAB Orsay

Mardi 27 Août 2019, 14:00

LPT, 114(This is the third of a series of lectures on neutron stars.)

Domaines: nucl-th

Titre: Neutron star cooling theory

Orateur: Natsumi Nagata (Tokyo University)

Résumé: Neutron stars cool down via neutrino and photon emissions. The theory of neutron star cooling is now established, and in particular the so-called minimal cooling paradigm is found to be in good agreement with observations. In this third lecture, I will discuss the neutron star cooling theory, with particular emphasis on the importance of nucleon superfluidity and out-of-beta-equilibrium effects. I will also show some recent observations, which have interesting implications for the neutron star cooling theory.