

752nd ASRC Seminar

Date: 平成31年4月16日(火) 14:00~

Location: 研究1棟 第5会議室

Speaker: 初田 哲男
(理化学研究所数理創造プログラム)

Title: Hadron-Quark Crossover in the Interior of
Neutron Stars

Abstract:

Whether the quark matter exists or not inside the neutron stars is one of the challenging problems in theoretical hadron physics and observational astrophysics. After introducing a scenario called the hadron-quark crossover for finite density QCD, I will discuss phenomenological impacts of this idea to the structure of neutron stars (mass, radius, tidal deformability, etc.) constrained by the observation of massive neutron stars as well as the gravitational wave from the recent neutron star merger GW170817. The possible hadron-quark crossover of the quantum vortices will be also discussed.

<Contact>

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