The Modern Physics of Compact Stars and Relativistic Gravity



Contribution ID: 24

Type: not specified

Correlations in nuclear systems and the symmetry energy

The account of correlations, in particular the formation of bound states at subsaturation densities, will modify the nuclear matter equation of state. Consequences for the composition and the symmetry energy are shown for parameter values (temperature, density, proton fraction) relevant for supernova explosions. The results of the quantum statistical approach are confronted with laboratory tests of the equation of state investigating heavy ion collisions.

For references see G. Roepke et al., arXiv:1305.3942 (to be published in PRC).

Primary author: Prof. ROEPKE, Gerd (University of Rostock) Presenter: Prof. ROEPKE, Gerd (University of Rostock)