Celebrating Wanda's birthday: a career devoted to the richness of nuclear many-body physics

Contribution ID: 8

Type: not specified

Constraints on the Neutron Star Matter Equation-of-State

Friday, 4 July 2025 10:15 (45 minutes)

Observations of the heaviest neutron stars, together with mass and radius measurements, and gravitational wave signals from binary neutron neutron star mergers, progressively tighten the constraints on the equation-of-state of dense baryonic matter. Using the presently available data base, results are presented of detailed Bayesian inference analyses. A focus is on prerequisites and limitations for hypothetical phase transitions at the baryon densities realized in neutron star cores. The possible structure and composition of matter under such conditions are discussed.

Presenter: Prof. WEISE, Wolfram (TUM)