Nuclear Spin Physics via Polarization Measurements

Tuesday, 11 September 2018 09:00 (40 minutes)

One of the primary goals of nuclear physics is to describe nuclei and their dynamics in terms of interactions between nuclear constituents.

In addition, high-precision experimental data and sophisticated theoretical calculations are very important for other research fields such as astrophysics and neutrino physics.

In this talk, three topics will be discussed by comparing experimental data with recent sophisticated calculations; three-nucleon force (3NF) effects in few nucleon systems and nuclear medium effects of nucleon-nucleon (NN) interactions, polarization phenomena and spin-isospin responses for the quest for a comprehensive description of nuclei, and applications of nuclear physics data and calculations for nuclear equation-of-state (EOS) and neutrino-less double beta-decay nuclear matrix element (NME).

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Track Classification: Spin Physics in Nuclear Reactions and Nuclei