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## Short-range correlations in nuclei and compact stars

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Recent advances in the study of the short-range structure of nuclei indicate that about 25% of nucleons in medium to heavy nuclei have momentum greater than Fermi momentum ( $k > k_F$ ). These high-momentum nucleons are found to be predominantly short-range correlated proton-neutron pairs, created by the short-range tensor interaction. Since these high momentum nucleons significantly increase the average kinetic energy on nucleons in symmetric nuclear matter but not in pure-neutron matter, they should decrease the value of the kinetic part of the nuclear symmetry energy. In this talk I will review results from recent studies of correlations in nuclei and their potential implications on astronomical object denser than nuclei.

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