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 $\begin{array}{c} \textbf{High-Momentum components of the nuclear wave function: access to the core and the tensor parts} \\ \textbf{of the N-N Interaction} \\ \textbf{ELIEZER PIASETZKY, Tel Aviv University} \end{array}$

The combination of inclusive and exclusive electron scattering data from JLab in kinematic regimes that were not reachable before, together with the analysis and interpretation of older data from hadronic reactions at BNL is finally revealing the details of short-range nucleon-nucleon correlations in nuclei. This talk will discuss the experiments involving the two-nucleon knock-out reactions 12 C(e,e'pp) and 12 C(e,e'pn) The most significant result is the demonstration of the dominance of correlated np pairs over pp pairs in the range of relative momenta 300–600 MeV/c. This can be explained in terms of short-range tensor-force dominance. These new results are essential for refining our understanding of the short-range behavior of the N-N force. Moreover, short range pp pairs are manifestation of asymmetric dense cold nuclear matter that can be studied in the laboratory, and are relevant to studying neutron stars.