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Abstract for an Invited Paper
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Short Range Correlations, High-Momentum Components of Nuclei, and the EMC Effect; New Theoretical Insights[1]

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Recent progress in studies of short-range correlations sheds new light on the host of nuclear phenomena ranging from hadronic modifications, quark-hadron transitions to the equation of state of superdense nuclear matter. We will first discuss the theoretical approaches in probing nuclear structure at short distances and high local densities. Then the question on how the nuclear interactions at short distances are related to the modification of the properties of bound nucleons will be addressed. The theoretical description of the recent observation of the relation between probabilities of 2N short range correlations and EMC effects will be presented. In the last part of the talk we will discuss the implications of the recent progress in studies of isospin structure of short-range correlations on the properties of the equation of state of high density asymmetric nuclear matter.

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