## Conference on Quantum-Many-Body Correlations in memory of Peter Schuck (QMBC 2023)



ID de Contribution: 173 Type: Talk

## Causes and consequences of the emergence of clusters in nuclei

mercredi 22 mars 2023 09:15 (30 minutes)

Nuclear clustering refers to the appearance of multi-nucleon localized structures, predominately under the form of  $\alpha$  particles, within the interior of a nucleus. The detailed understanding of how quantum correlations among nucleons give rise to nuclear clustering is still lacking, the main difficulty being the need to a priori include four-nucleon correlations.

Using the Energy Density Functional framework, conditions for the emergence of clusters are analyzed and spectroscopic signatures of these structures are discussed.

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Classification de Session: Wednesday 09:15-10:45

Classification de thématique: Clustering