

Abstract Submitted
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Concept of arrangement in an N -body quantum system¹ BO GAO,
Univ of Toledo — We discuss the concept of “arrangement”, traditionally found in
the context of few-body rearrangement collisions, in a more general context of an N -
body quantum system. We show that for an N -body quantum system with attractive
interactions that can bind the constituent particles, the concept of arrangement
provides both a necessary and an important basis for understanding its complexity
and the general structure of its Hilbert space. The concept is a necessary part
of a foundation for a more complete understanding of N -body quantum systems,
especially those made of atoms and molecules.

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