— 第953回九大原子核セミナー —

講師： Dong BAI (Nanjing University)

演題： Preliminary Results on Non-Localized Clustering in Alpha- Alpha Elastic Scattering

日時： 4月12日 (金) 16:30〜

場所： 九州大学伊都キャンパス
ウエスト1号館7階 物理セミナー室3 (W1-A-723)

概 要

Cluster structures play an important role in nuclear many-body systems. The non-localized clustering is a new picture for nuclear cluster physics proposed recently. Unlike the traditional picture of localized clustering where the clusters are thought to be arranged in rigid positions, in this new picture the clusters could move freely in nuclear containers. The non-localized cluster model has been applied to study the properties of bound states and resonance states in various light nuclei and hypernuclei. It is an important subject to extend it also to study elastic scattering and other reaction processes. Especially, it is interesting to study how the nuclear container evolves in reaction processes. In this talk, I would like to report some preliminary results on non- localized clustering in alpha-alpha elastic scattering. A general introduction to non-localized clustering and the microscopic R-matrix theory will be given first. The theoretical formalism for our study will then be discussed in detail, along with some preliminary numerical results. Some ideas on future projects will be also discussed briefly.

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