— 第963回九大原子核セミナー —

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演題： Extracting each component from discretized breakup cross sections in multi-breakup-channel reactions

日時： 3 月 9 日 (月) 17:00〜

† 今回は通常と時間が異なりますのでご注意ください。 † 時間が変更になりました。

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 2 (W1-A-722)

概 要

The continuum-discretized coupled-channel method (CDCC) proposed in Kyushu University is still one of the most powerful methods of describing breakup reactions. As a dramatic development in the last fifteen years, CDCC can treat multi-breakup-channel reactions beyond simple three-body scattering, i.e., four-body CDCC and three-body scattering with core excitation. For example, in ^{6}Li scattering (n+p+α+T, T is a target), the four-body-breakup channel (n+p+α+T) and the three-body-breakup channel (d+α+T) coexist, and they are coupled to each other during the scattering. In CDCC, those two channels are precisely taken into account on an equal footing but the corresponding breakup cross sections (BUXs) are obtained as an admixture of these channels because of its discretization. It is desired to separately calculate those BUXs. In this talk, we propose an approximate method of extracting each component from the discretized breakup cross sections. We show the validity of the approximation method and discuss reaction dynamics beyond simple three-body scattering.

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