Study of the fission path energy of U-236 using microscopic mean-field model

Thursday, 26 November 2020 16:50 (2 hours)

Microscopic mean-field model is one of strong methods for providing and improving fission-related nuclear data.

It needs appropriate effective interaction, but there is no effective interaction designed for fission path. In order to tackle this problem, we calculate the U-236 potential energy surface with respect to the elongation of a nucleus and the mass asymmetry with existing Skyrme effective interactions.

We report the energy characteristics of potential energy surface and important parts for correcting the fission barrier.

Primary author: FUJIO, Kazuki (Tokyo Institute of Technology)

Co-authors: Prof. CHIBA , Satoshi (Tokyo Institute of Technology); Dr EBATA , Shuichiro (Saitama university); Dr INAKURA, Tsunenori (Tokyo Institute of Technology)

Presenter: FUJIO, Kazuki (Tokyo Institute of Technology)

Session Classification: Poster