

ELPH seminar

講演者: Dr. Magdalena Skurzok

(Istituto Nazionale di Fisica Nucleare, Italy)

日時: 2020年11月19日(木) 17:00-18:30JST (09:00-10:30CET)

題目: Search for eta-mesic nuclei with WASA-at-COSY facility

形式: Zoomによるオンラインセミナーの予定

接続情報は一週間前程度に学内の人たちにはメールでお知らせします。
そうでない人は石川までお問い合わせください。

(ishikawa@ins.tohoku.ac.jp, Tel +81-22-743-3433)

アブストラクト

The existence of eta-mesic nuclei in which the eta meson is bound in a nucleus by means of the strong interaction was postulated more than 30 years ago, however, it has not been yet confirmed experimentally. The discovery of this new kind of an exotic nuclear matter would be very important as it might allow for a better understanding of the eta meson structure and its interaction with nucleons. The search for eta-mesic helium is carried out with high statistics and high acceptance with the WASA detector, installed at the COSY accelerator in the Research Center Juelich. The search is performed via the measurement of the excitation function for selected decay channels of the $4\text{He-}\eta$ and $3\text{He-}\eta$ systems.

The talk will include a description of the experimental method used at WASA and the status of the data analysis.