Lambda Hypertriton Spectroscopy by Electron Scattering at JLab

TOSHIYUKI GOGAMI, Graduate School of Science, Kyoto University, JLAB HYPERNUCLEAR COLLABORATION — The simplest bound system with a Λ hyperon is a hypertrion which is an isospin singlet state of three body system. The strong interaction between a Λ and a nucleon (ΛN interaction) has been mainly investigated by using energies of Λ hypernuclei. The Λ binding energy $B_\Lambda$ of the simplest hypernuclei could give us a strong constraint for the study of ΛN interaction. We are planning to measure the Λ binding energy with an accuracy of $|\Delta B_\Lambda^{\text{total}}| < 100$ keV which would be the best accuracy among counter experiments. In the presentation, I will introduce an overview of the experiment (JLab C12-19-002). An expected result and impact for the baryon interaction study will also be discussed.

1This work is supported by JSPS KAKENHI Grants No. 18H05459, No. 18H01219, No. 17H01121, and SPIRITS 2020 of Kyoto University

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Date submitted: 30 Jun 2020