

## Production of light $\Xi$ -hypernuclei, $7\Xi\text{H}$

*Thursday, 30 June 2022 11:15 (15 minutes)*

Intense  $K^-$  beam at J-PARC will enable us to investigate strangeness  $-2$  systems, namely  $\Xi$ -hypernuclei and double- $\Lambda$  hypernuclei. In particular, the high-resolution S-2S spectrometer will be a key ingredient for a systematic study of these systems by means of  $(K^-, K^+)$  reactions.

The J-PARC E75 experiment plans to produce  ${}^5_{\Lambda\Lambda}\text{H}$  as a decay product of  ${}^7_{\Xi}\text{H}$ . In the first phase, we will investigate the formation of  ${}^7_{\Xi}\text{H}$  by the  ${}^7\text{Li}(K^-, K^+)$  reaction.

We will report the outline of the E75 experiment.

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