## Hypernuclear Meeting Discussion

T. Gogami (Kyoto Univ.) July 22, 2022

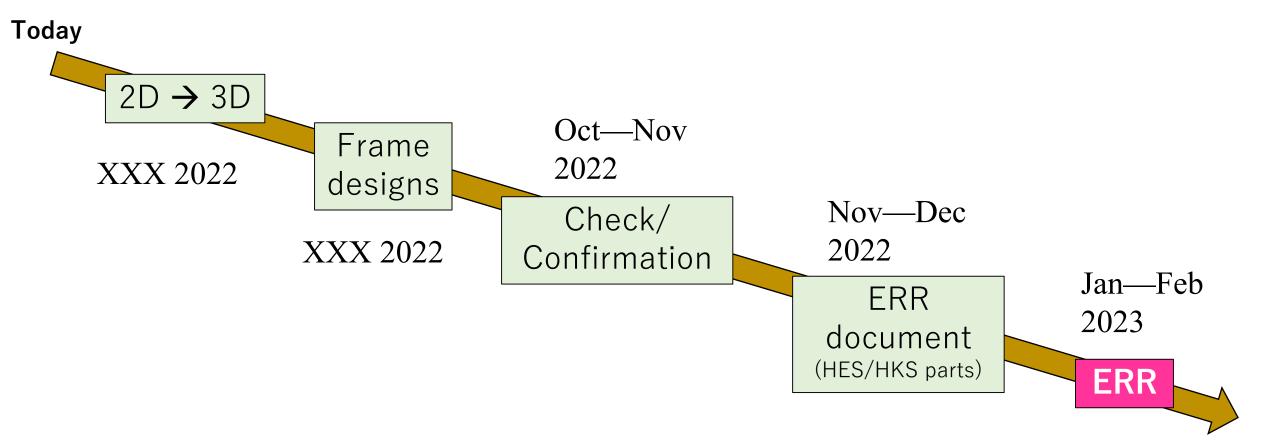


- Spectrometers' frames
- Target

## Spectrometer frame design

#### Frame designs (we need your support)

- vertical HES
- vertical HKS → If possible, we would consider this option as well.



## Target design

#### Monthly discussion with Dave

(<a href="https://wiki.jlab.org/tegwiki/index.php/Hyp\_hrs-hks\_weeklymeeting#Target\_Meeting">https://wiki.jlab.org/tegwiki/index.php/Hyp\_hrs-hks\_weeklymeeting#Target\_Meeting</a>)

- → Conceptional design was done (solid/gas + motion system is similar to PREX/CREX)
- → Next: detailed design + safety assessment
- → We needs official support from Target group

To hold ERR in Jan 2023, the official man power assignment is necessary as soon as possible.

Backup

### Radiation budget (to ask Pavel)

- Target list (material, thickness)
- Beam energy, current, and time
- Parameters/drawings for the beam-line apparatus
  - ← We would use non-standard beam line to go to beam dump

Beam current and time for each target will be determined once the spectrometer setting is determined

## Target list (Preliminary)

Material	Thickness [/(g/cm²)]	State
CH <sub>2</sub>	500	
<sup>6</sup> Li	100	
<sup>11</sup> B	100	
<sup>12</sup> C	100	Solid
<sup>40</sup> Ca	77.5	
<sup>48</sup> Ca	77.5	
<sup>208</sup> Pb	100	
<sup>1</sup> H <sub>2</sub> (+Al cell)	190 + (<162)	
<sup>3</sup> He (+Al cell)	262 + (<162)	gas
<sup>4</sup> He (+Al cell)	56 + (<162)	

Collimator / SS

# Collimator /SS designs need to be done assuming spectrometers to be used.

→ At first, we need to determine the spectrometer configurations.