

JLab hypernuclear collaboration meeting 2021

SHORT SUMMARY FOR DISCUSSION



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https://wiki.jlab.org/tegwiki/index.php/Hypernuclear_CollaborationMeeting_2021Dec

SUMMARY OF TALKS WE HAD

nnΛ analysis + result

- Cross section → acceptance in [PTEP \(2021\)](#)
- Peak search ← in analysis
- FSI ← in analysis

Future plan (approved experiments: ${}^3_Λ\text{H}$, ${}^{40,48}_Λ\text{K}$ (, ${}^{27}_Λ\text{Mg}$), and ${}^{208}_Λ\text{Tl}$)

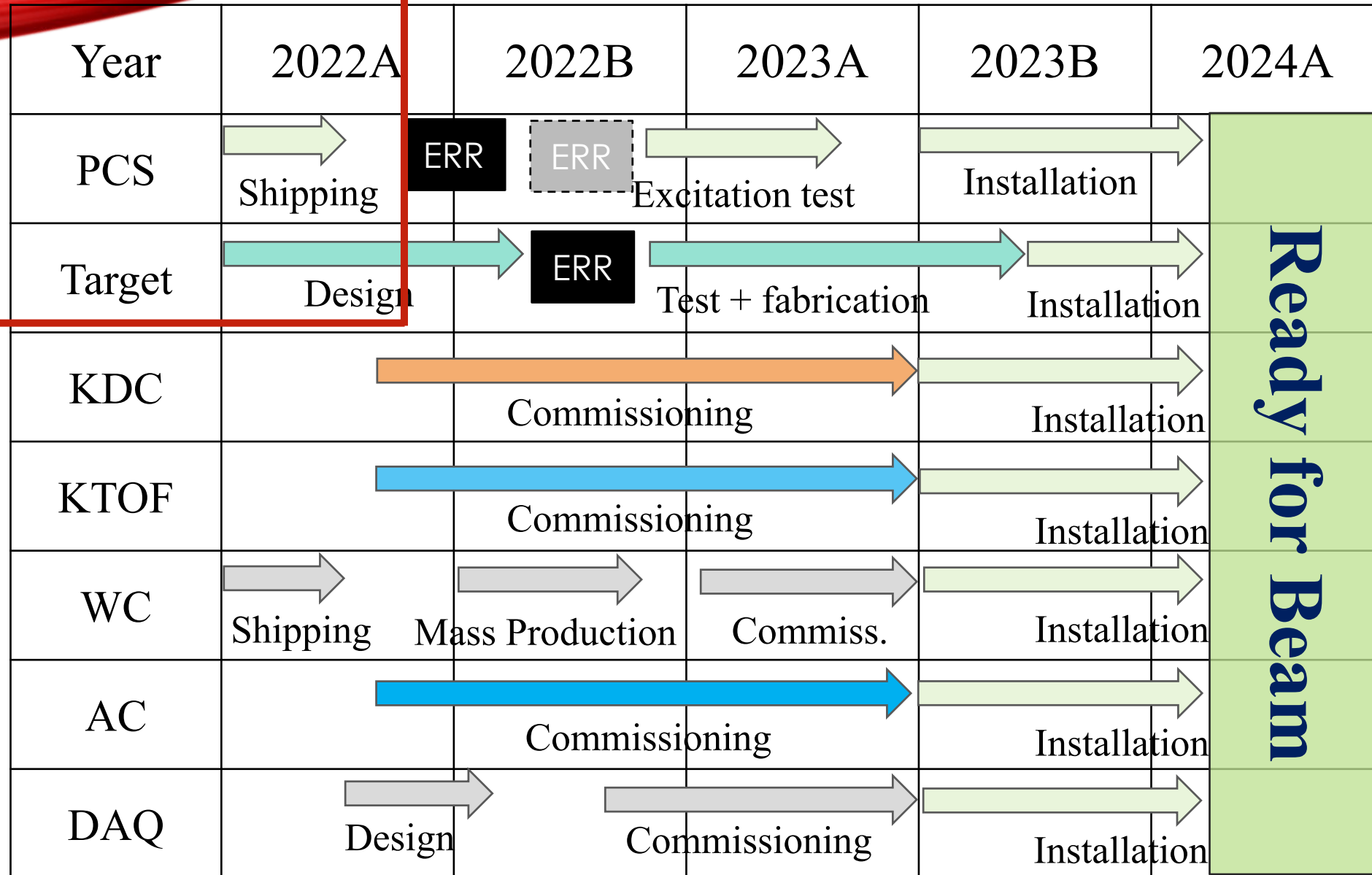
- Gas needs the vertex information → Vertical spectrometer (is this possible safely?)
- Lower energy beam → S/N gets worse → Lower current on Pb?
- HKS modification is necessary to avoid e⁻e⁺ backgrounds
- Optics study is on going
 - Resolution, yield(, S/N)
- Idea of the angle calibration with SciFi detector
 - Sieve slit + SciFi
- New water Cherenkov is being tested
- Other detectors' commissioning + Trigger system preparation will resume next year
- PCS shipping in Feb 2022.
- Hall A/C status → Hall A is too busy. It may be possible at Hall C in 2025

POSSIBLE SCHEDULE

Year	2022A	2022B	2023A	2023B	2024A
PCS	Shipping	ERR	Excitation test	Installation	Ready for Beam
Target	Design	ERR	Test + fabrication	Installation	
KDC		Commissioning		Installation	
KTOF		Commissioning		Installation	
WC	Shipping	Mass Production	Commiss.	Installation	
AC		Commissioning		Installation	
DAQ	Design	Commissioning		Installation	

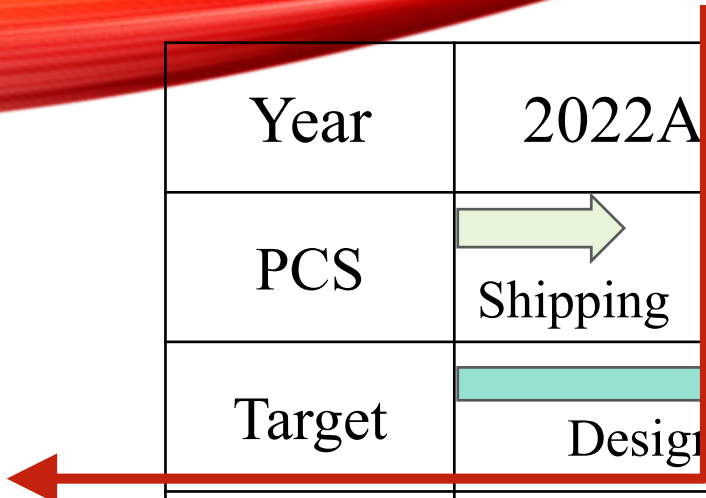
A = Jan—June
B = July—Dec

POSSIBLE SCHEDULE



A = Jan—June
B = July—Dec

**(Detailed)
setup
design is
needed**



DISCUSSION

EST ECT JST
07:30-08:20 13:30-14:20 21:30-22:20

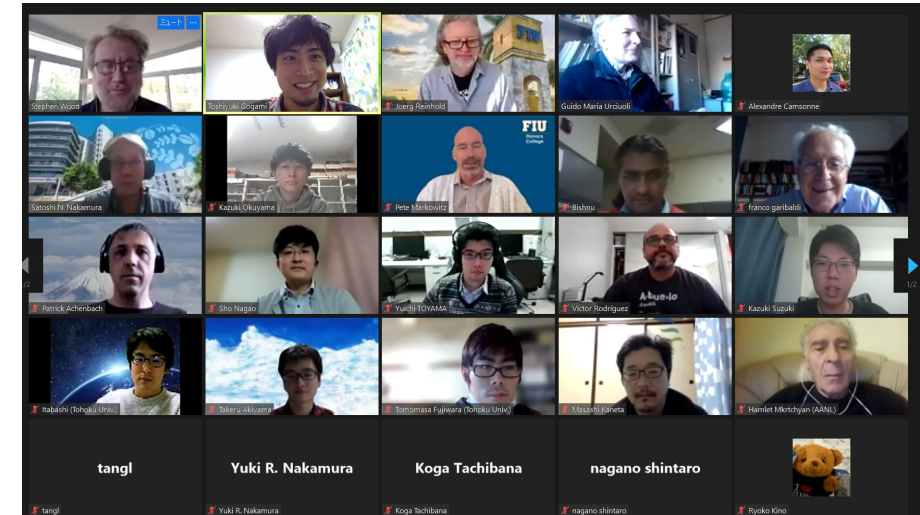
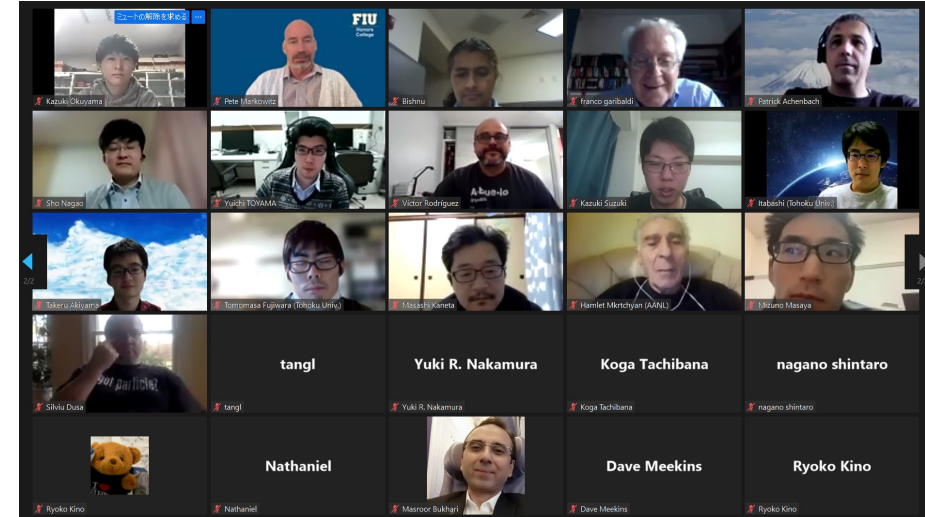
1. When is really available at Hall C?

2. ERR

- PCS: March—June 2022?
- Target : October 2022

3. Equipment

- HKS modification (vacuum chamber)
- Vertical HES/HKS
- (Detector commissioning plan = visit plan)



Photos on the first day