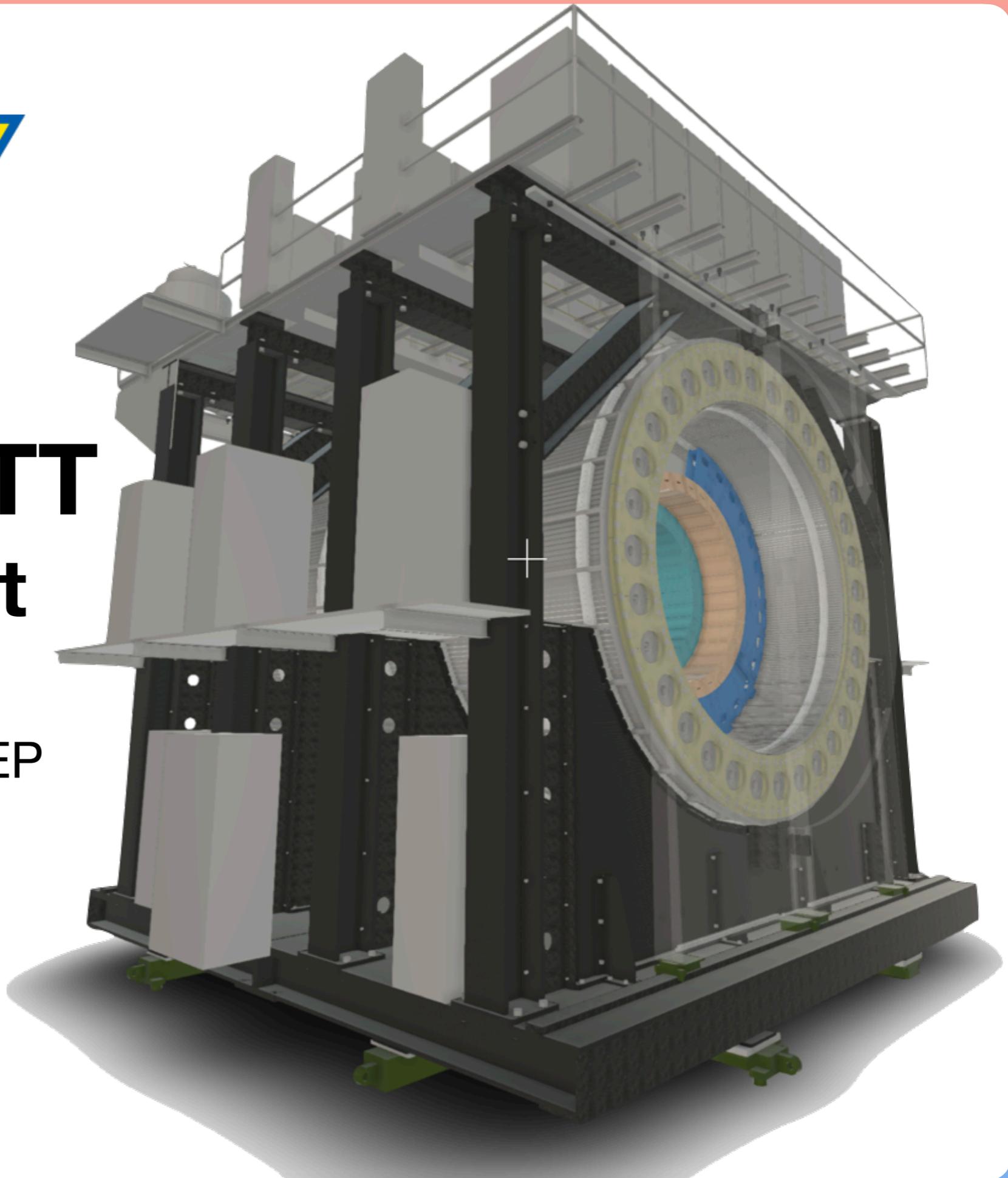




# SPHENIX INTT - Weekly Report

Cheng-Wei Shih, NCUHEP

2021/5/13



# Half-ladder assembly status



Half-ladder assembly

	<b>Total</b>	<b>Good</b>	<b>Not yet bonded &amp; tested</b>	<b>Bad</b>
<b>Chip to HDI</b>	11	1	0	10
<b>Sensor to HDI</b>	4	2	1	1
<b>Encapsulation</b>	1	1	0	0
<b>Thermal cycle</b>	34	30	0	4

One in NWU

all bonded	27
1 ~ 6 un-bonded	7
7 ~ 25 un-bonded	0
> 25 un-bonded	3

Bonding performance (chip to sensor)

# Components arrival

- The stave, HDI and inspection boards were arrival.



14 barrel-2 staves  
1 barrel-1 stave



46 HDIs  
2 inspection boards

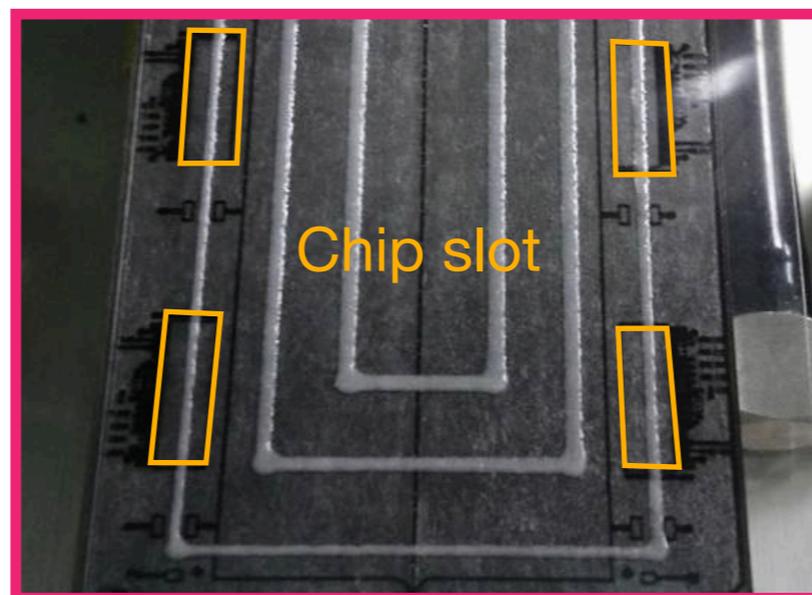
- clamp + torque screwdriver from BNL were arrival.

# Stave quality test



- We have DP460NS on hand now
- We haven't used it yet, we need instructions from BNL.

# Regarding to the stave glue



Two glue lines under chip

# Back up



# Twist test status



- We first focused on barrel-1
- 23 barrel-1 staves in total (Batch-1 : 13, Batch-2 : 10)
  - 2 staves → failed in leakage test
  - 2 stave → ladder assembly.
  - 6 staves → twist test practice (all are bad in flatness)
- Remaining : 13 staves
  - 13 trials -> 13 failed
- We recorded the twist test for all staves and took photos after twist, photos and videos are in the [link](#).
- Leakage & submersion test for 8 batch-2 barrel-1 staves were performed after twist test → 1 passed
  - [link](#) of submersion test

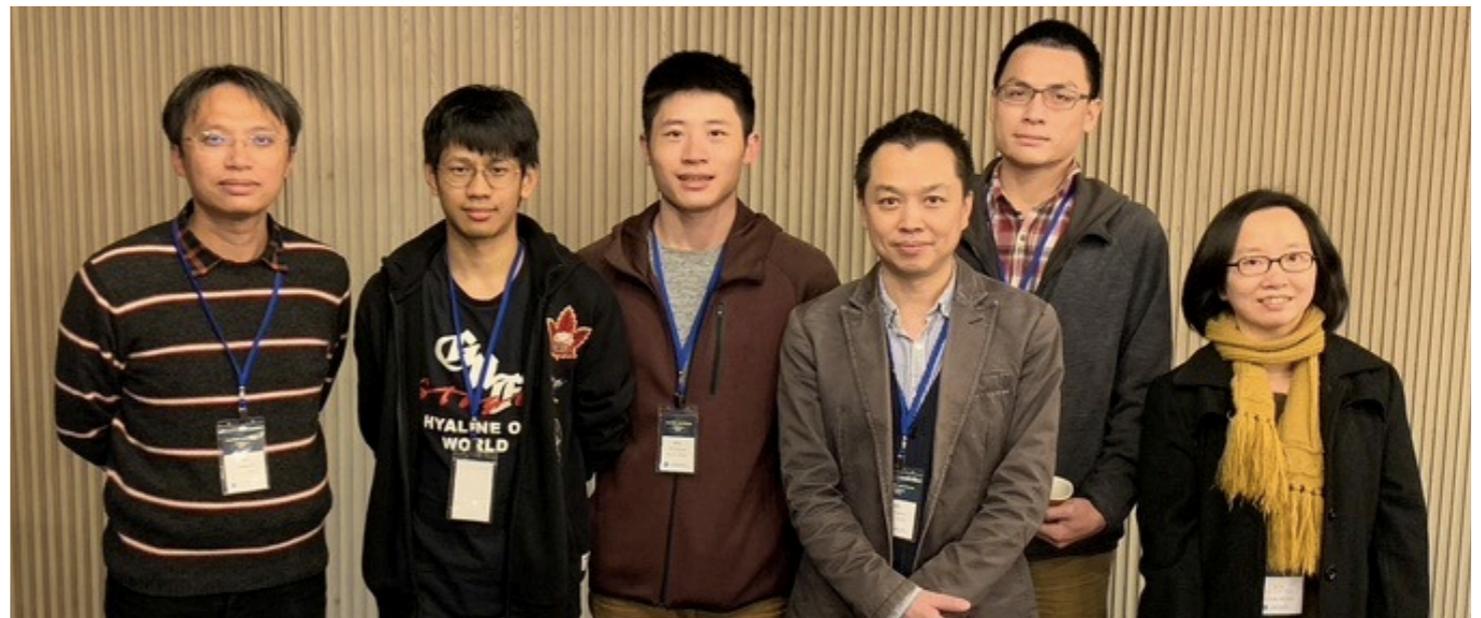
# Taiwan INTT team



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