

My work in 2016

4-1

Hiroki Tanaka

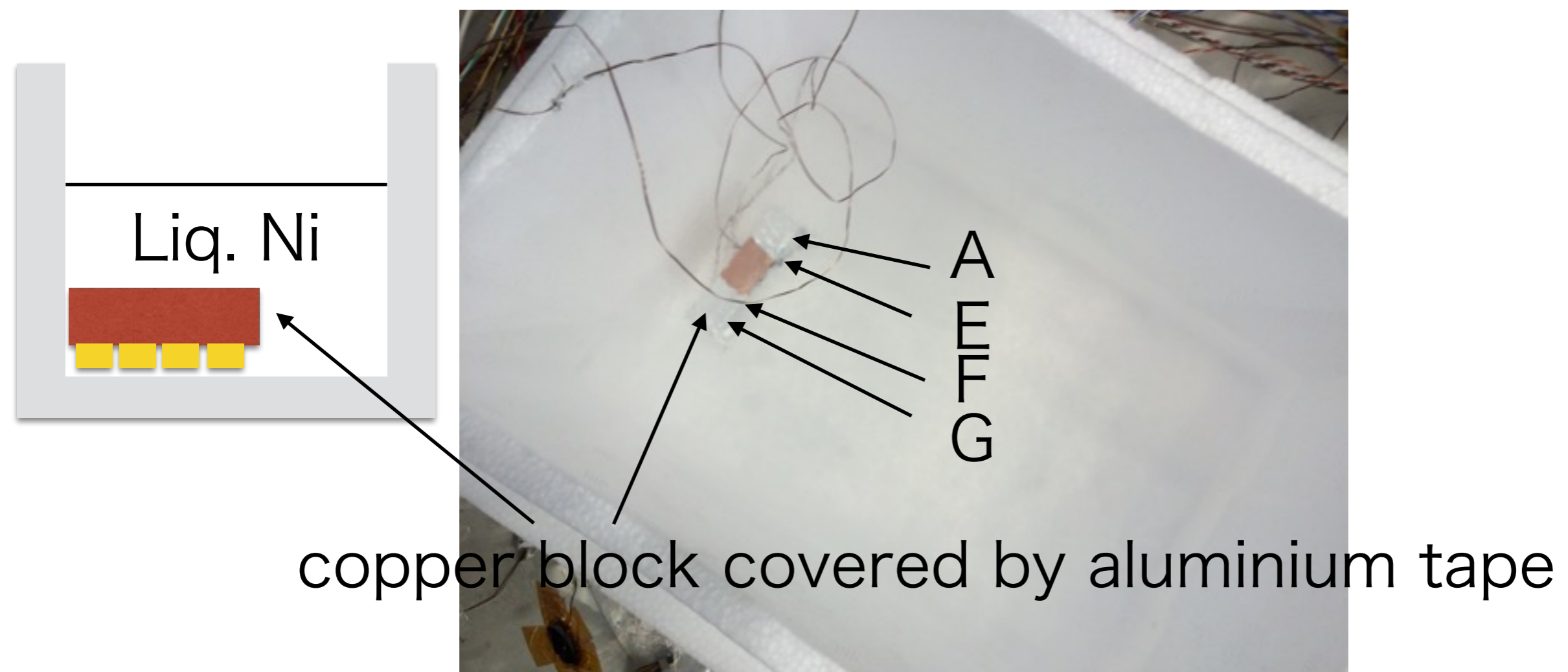
Calibration by liquid nitrogen



Yamamoto-sensei borrowed
10 liter liquid Nitrogen
from ISSP
while I was in Kamioka.

Calibration by liquid nitrogen

I attached the sensors on the small copper block by varnish. Then I installed the liquid nitrogen into the box.



Calibration by liquid nitrogen

- I set the curve of LS218 to the standard curve of DT670.
- Result A 77.50K E 76.85K F 77.38K G76.77K

Calibration by liquid nitrogen

This experiment (77K)

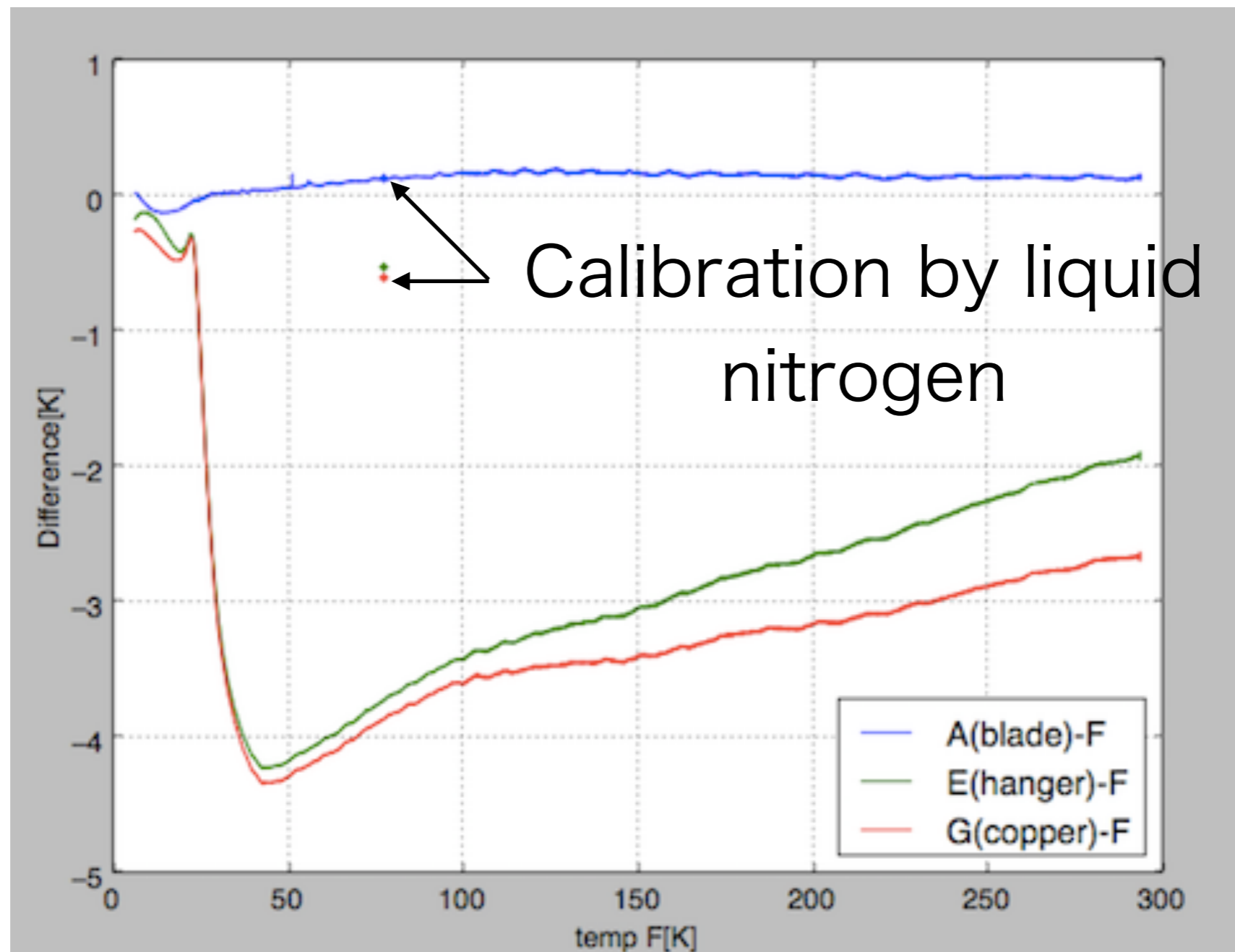
- A-F 0.12K E-F -0.53K G-F -0.61K

Last calibration test (77K)

- A-F 0.12K E-F -4K G-F -4K

Comparing two calibration

The graph...last calibration



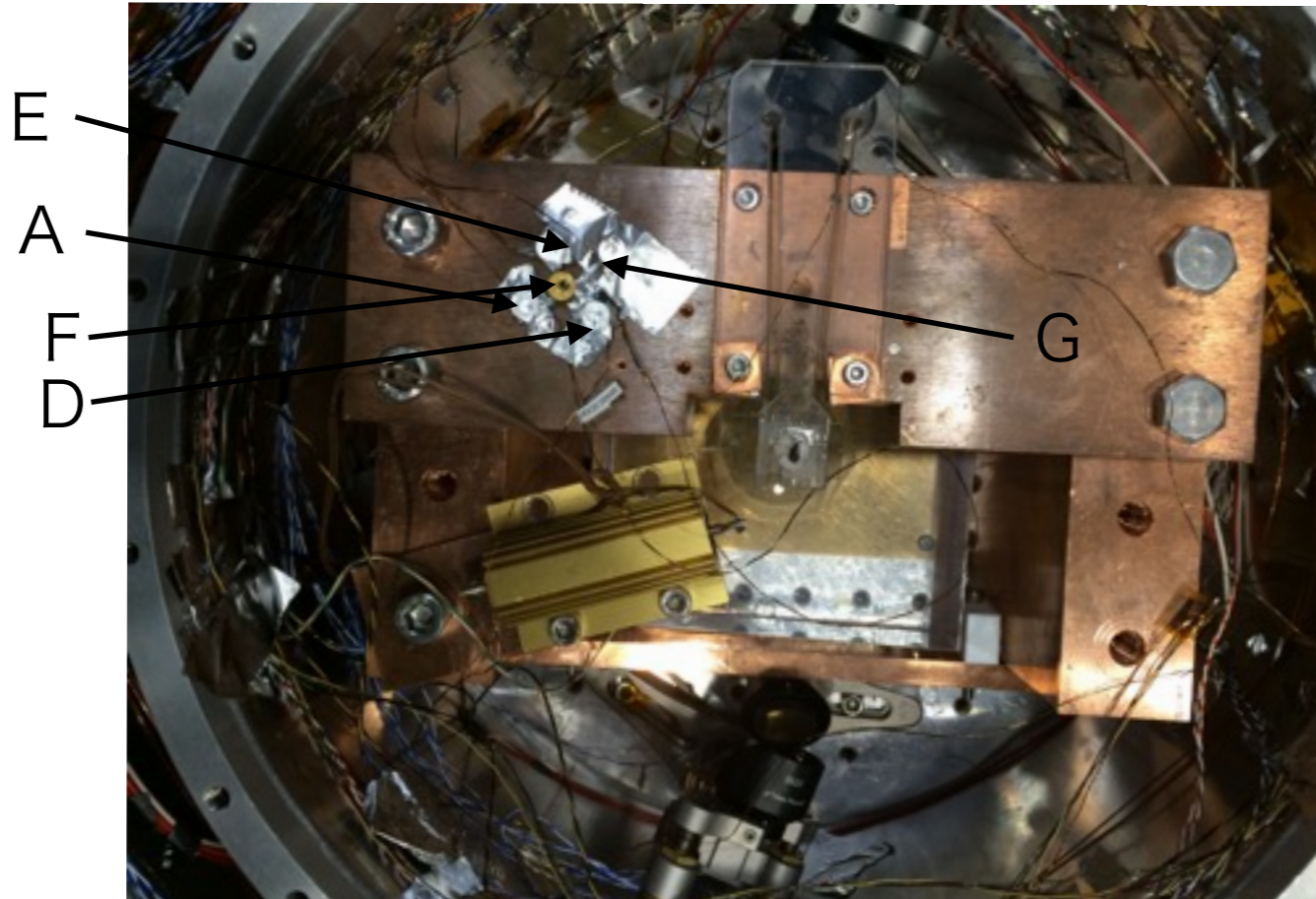
Calibration by liquid nitrogen (KEK)

- Yamamoto-sensei and Kieran brought the sensors to KEK and did the calibration test while I was in Kamioka.
- A 1.02718V→77.586K
- E 1.02789V→77.177K
- G 1.02794V→77.148K
- A-E 0.409K A-G 0.438K
- The discrepancy was smaller than that of the test in ICRR.

Future work

Last time, we recorded the temperature “during cooling down and warming up”.

Next, we will do the same calibration test, but we will do as the next slide.



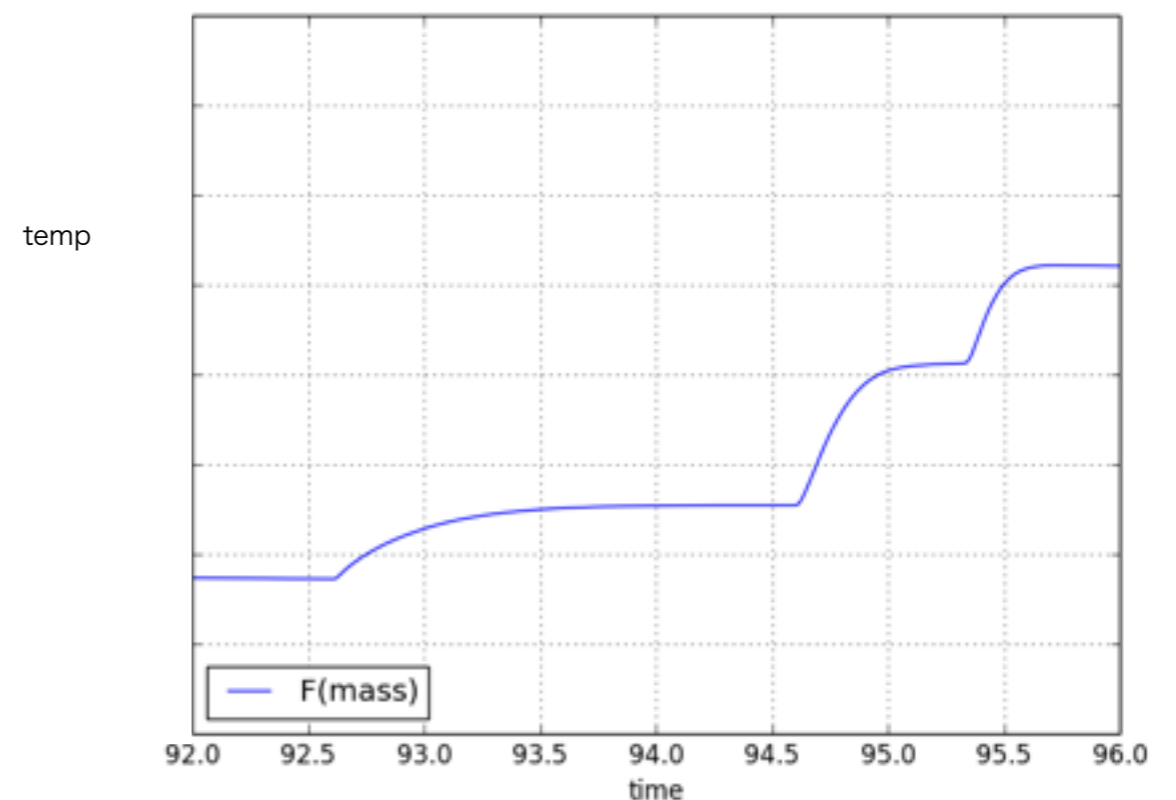
Future work

First, we will cool down the cryostat.

Then we add some power to the heater and wait until the temperature of all sensors become constant.

Then we add more power and wait...

In this case, the temperature of all sensors must be the same.



Can I and Miyamoto-kun go to Europe?