

# Status of RichWall and MWPC's

The Torino group

# The status at the **last TB** (8 February 2022)

## Conclusions

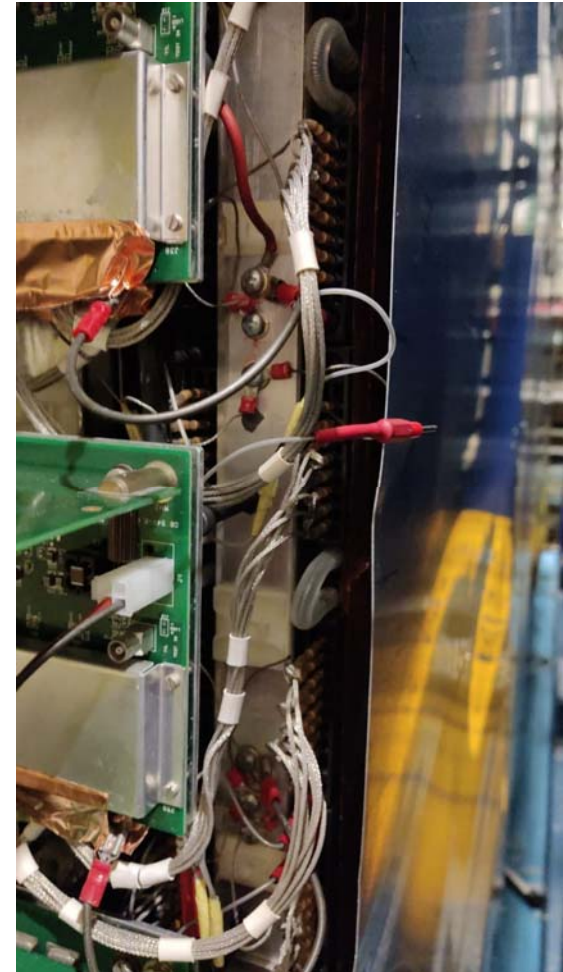
- The work has been started on both the RW and the MWPCs
- The operations on the RW may be expected to last for ~1 month in case no serious problems are discovered
- The refurbishment of the MWPC will most probably take 1,5-2 month if we decide to change the external window on more than one chamber

# The status today (19 April 2022)

## RichWall

The work on RichWall is over:

- A full check of the gas system solving the gas issues
- A full check of FE electronics connections
- A full check on LV
- A full installation of the FE EM shielding
- A full check and repair of the HV distribution



# The status today (19 April 2022)

## RichWall

We are flushing the Gas already in the final mixture since 2 weeks

All HV tested and ok:

Rwall HV System

Group operation:

On Off

Settings

Pop Window

Action

Channel Name	v0 (V)	vMon (V)	iMon ( $\mu$ A)	isOn	HwAlarms
Rwall_Hv_X1_1	2150.00	2149.96	0.10	TRUE	OK
Rwall_Hv_X1_2	2150.00	2150.03	0.08	TRUE	OK
Rwall_Hv_X2_1	2150.00	2149.97	0.16	TRUE	OK
Rwall_Hv_X2_2	2150.00	2150.07	0.07	TRUE	OK
Rwall_Hv_X3_1	2150.00	2149.97	0.04	TRUE	OK
Rwall_Hv_X3_2	2150.00	2150.01	0.09	TRUE	OK
Rwall_Hv_X4_1	2150.00	2150.08	0.10	TRUE	OK
Rwall_Hv_X4_2	2150.00	2150.04	0.06	TRUE	OK
Rwall_Hv_Y1_1	2150.00	2149.97	0.00	TRUE	OK
Rwall_Hv_Y1_2	2150.00	2150.04	0.06	TRUE	OK
Rwall_Hv_Y2_1	2150.00	2150.01	-0.02	TRUE	OK
Rwall_Hv_Y2_2	2150.00	2150.09	0.02	TRUE	OK
Rwall_Hv_Y3_1	2150.00	2150.04	0.04	TRUE	OK
Rwall_Hv_Y3_2	2150.00	2150.10	0.04	TRUE	OK
Rwall_Hv_Y4_1	2150.00	2150.09	0.02	TRUE	OK
Rwall_Hv_Y4_2	2150.00	2150.06	0.02	TRUE	OK

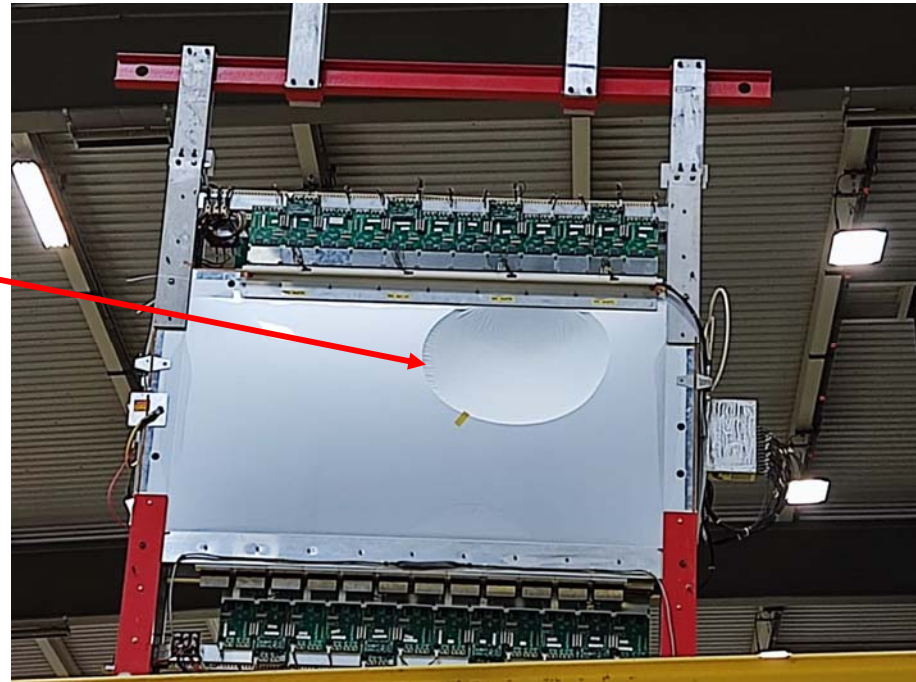
Now waiting for the beam to have more details on the different channels

# The status today (19 April 2022)

## MWPC

Main goal was to fix the HV instability on PB06

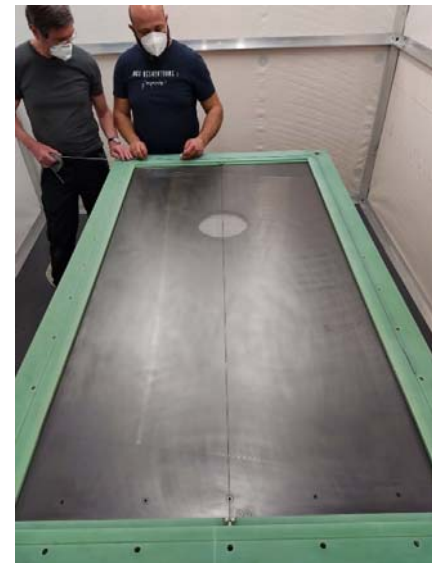
A clear problem on the AL-Mylar of the external windows. A detachment between the AL and Mylar layers caused the HV problems.



# The status today (19 April 2022)

## MWPC

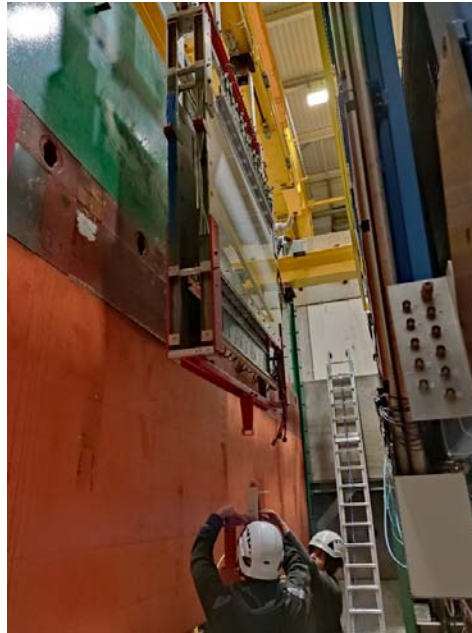
Main goal was to fix the HV problem on PB10



# The status today (19 April 2022)

## MWPC

After the repair, an HV test with Nitrogen in the “clean” room went well, now flushing the chamber in the final position. From today on, we switched for the nominal gas for the final test. This test was not possible in the clean room, as the proper mixture was not available there



# The status today (19 April 2022)

## MWPC

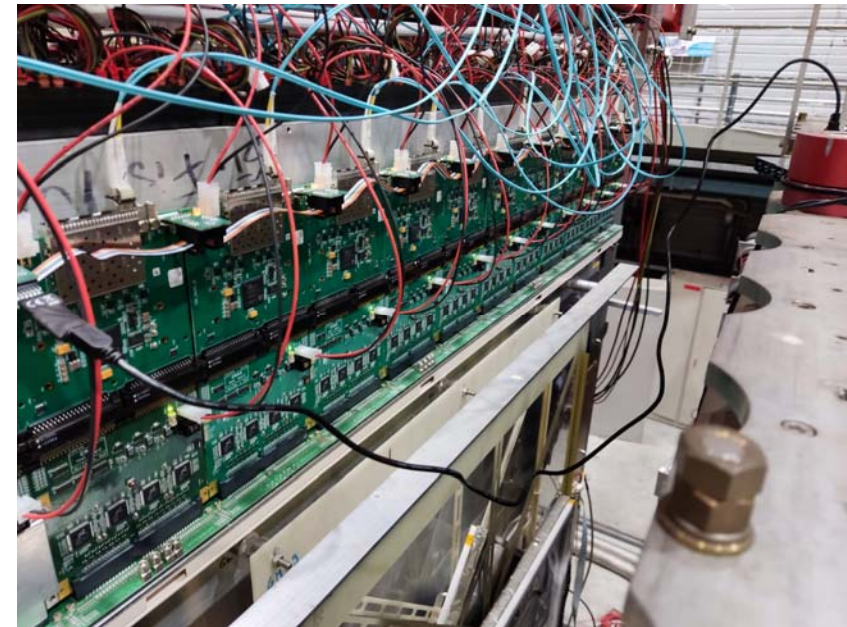
The PA05 chamber with the new iFTDC & CMAD based FEs has been instrumented

### Done:

- The FEs loading has been integrated into the config server
- The equalisation of the thresholds has been tested
- The new PSs had been installed in the experimental hall

### Ongoing:

- We need to finish the Raspberry based firmware loading infrastructure
- We need to move the 3x DHmx used with our chamber into our crate
- We need to check the COOL&CORAL mapping and integration, waiting for the firmware with the final mapping of the TDC channels





## The status today (19 April 2022)

### **RW and MWPC refurbishing: conclusions**

- Most of the planned works foreseen for RW and MWPC are over.
- A final word on the succes of these interventions will be only after the start of the run.
- Next interventions are foreseen during the week 02.05.22, the time will depend on the accessibility to the area
- A big effort in terms of manpower and money
- Thanks to Stefano and all the people who helped us during these works.