

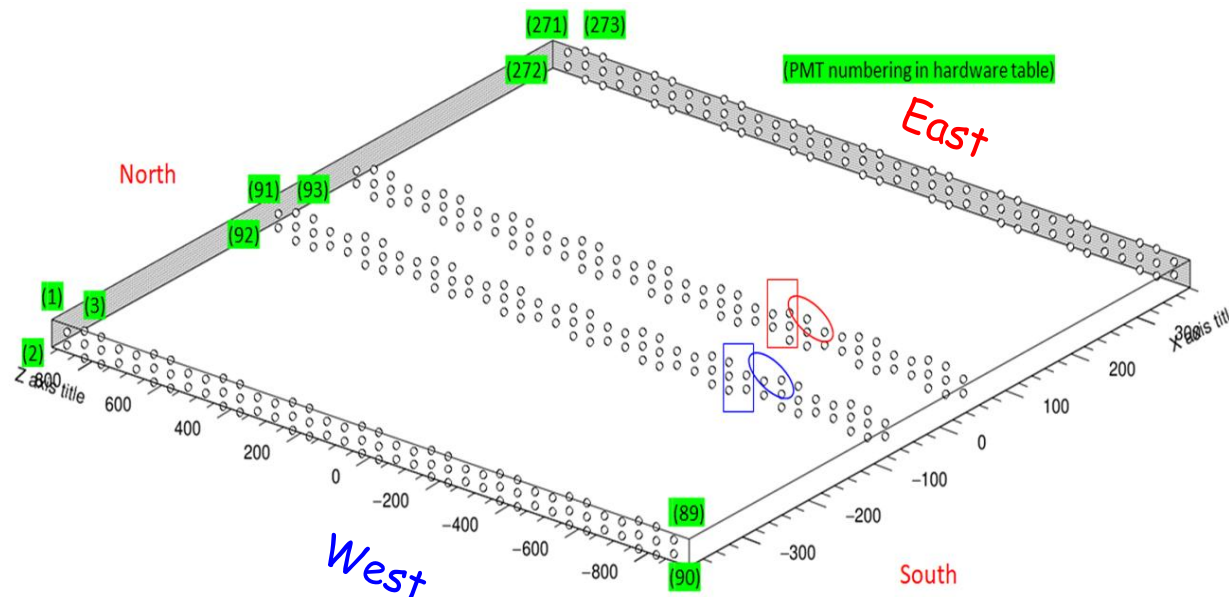
Report on PMTs activation

G.L.Raselli and A. Chatterjee for the PMT WG

WA104 Meeting, 12-JUN-2020

PMT activation

- On 4TH AND 5TH June 2020 a minimal set of 16 PMTs (8 PMTs in each cryostat) has been activated in LAr. .
 - ✓ The identified PMTs are in WE and EW, marked by the blue and red shaped
 - ✓ On first day 8 in the WE will be turned on.
 - ✓ On second day 8 in the EW will be turned on.



PMT in the EW:

HV: CAEN SY1527

PMT2-RA2 ch 16-23

Signal: 5 channels in digitizer EW-BOT-B and 3 channels in EW-BOT-C

PMT in the WE:

HV: CAEN SY1527

PMT1-RA4 ch 16-23

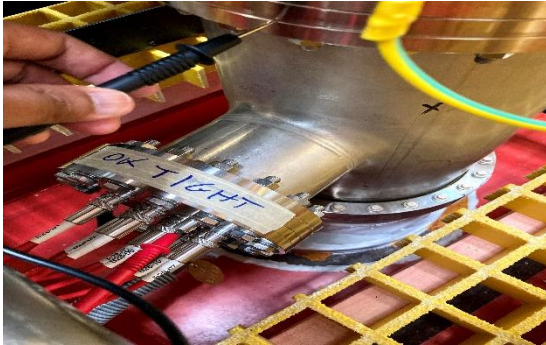
Signal: 5 channels in digitizer WE-BOT-B and 3 channels in WE-BOT-C

- The procedure followed the work plan:

<https://sbn-docdb.fnal.gov/cgi-bin/private/ShowDocument?docid=17740>

Connectivity test of the HV Chimney

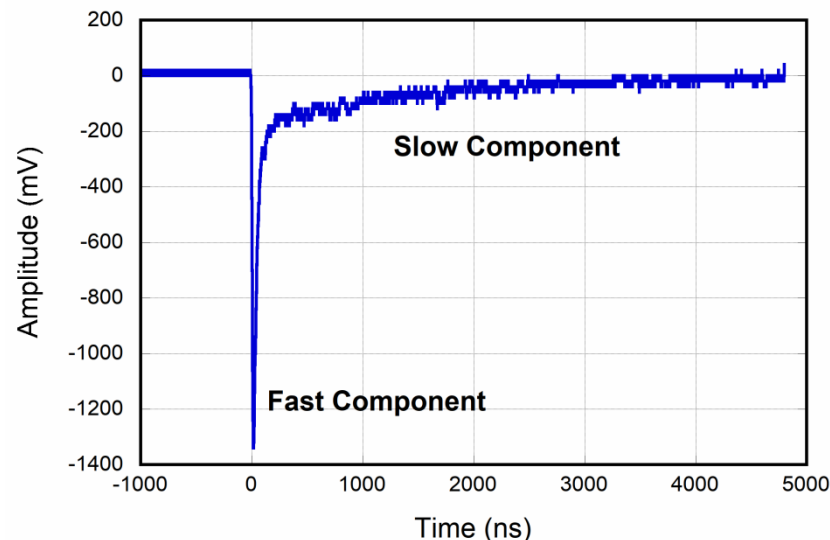
- The procedure started with a connectivity test:
 - Tested all 16 PMTs connectivity at HV chimney;



- Connectivity of the signal cable was also checked before turning the HV on.
- Successfully able to turn on
- Bertan HV supplies (both West and East) were successfully remotely controlled (switching on/off and monitor HV).
- HV distributor system (SY1527) was also worked remotely.
- HV of each PMT can be monitored using GUI.

PMT activation in LAr

- All 16 PMTs HV ramped upto nominal voltage is 100 V steps
- Data stored both at the scope and running DAQ for 500V, 1000V and Nominal voltages
- All the PMTs are working fine and preliminary data have been acquired.



- This make possible to carry out checks on light detection system, such as: *Digitizers performances, HV system reliability, Slow Control developments.*
- The PMT activation and control can be performed in remote mode.
- A Graphical User Interface GUI is in preparation for the shifter people.