

# RICH Status

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on behalf of INFN Trieste group

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# Situation

- 8 faulty HV channels in the MAPMTs.-> Fixed
- A LED has been mounted on the side flange of the rich. → Has been mounted and tested
- 2 APV mother board cards and 1 chip was giving readout problems. -> Fixed
- MWPC HV to be connected to the new HV modules. -> Fixed
- There was a faulty module in hybrid HV system with 1 channel broken from 2016. -> Fixed
- Leak tests of the PDs -> Done!
- Regeneration of the  $C_4F_{10}$  filters -> Done!
- Regeneration of the  $CH_4$  filters need to be done. -> Yet to be fixed
- **Thanks especially to Christophe, Moritz, Martin, Michela, Stefano and all other colleagues for their very kind help to solve most of the problems we found during the period.**

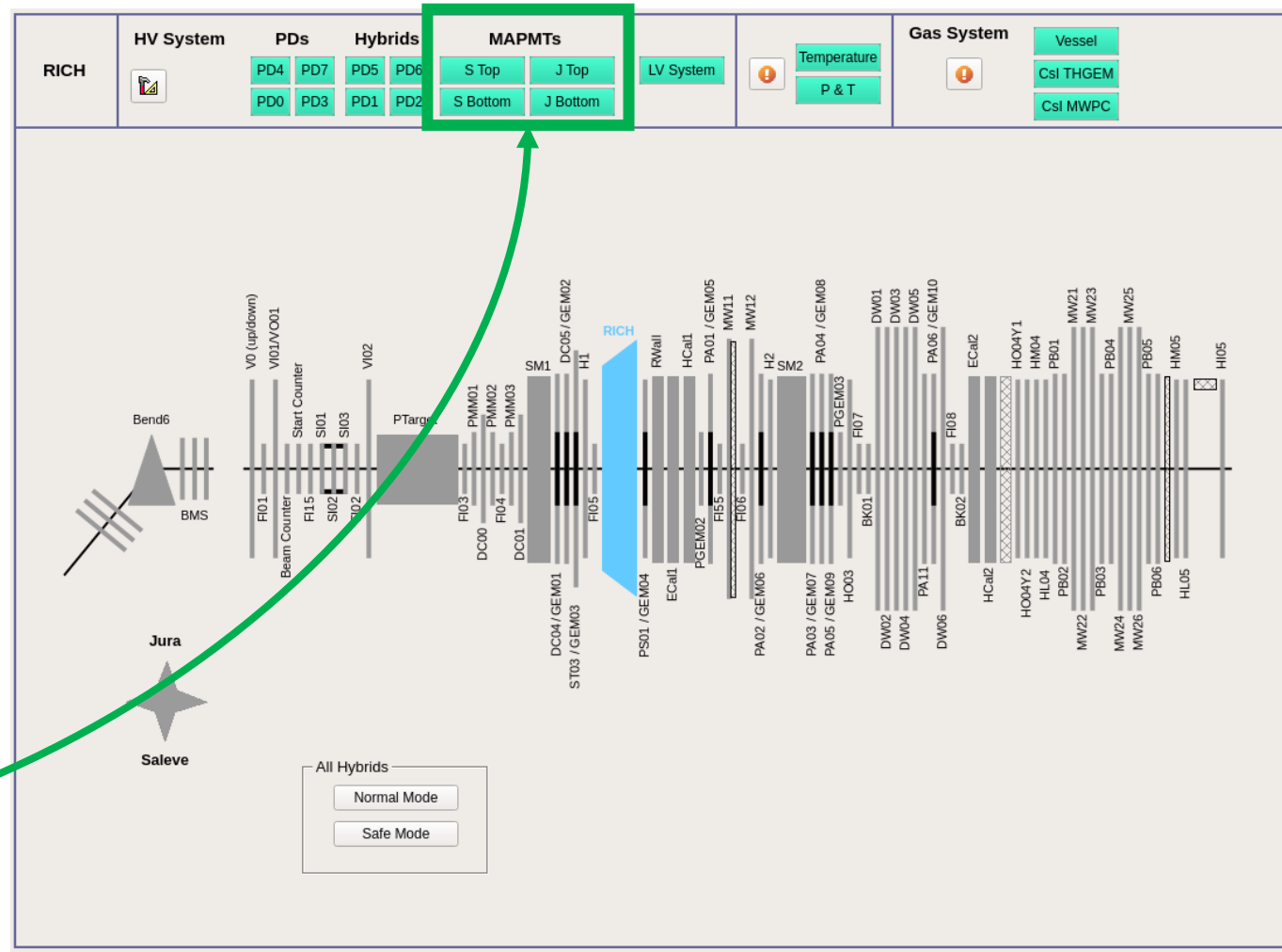
# HV MAPMT

- ST040::RICHCCR3::B00::CH040
- JT004::RICHCCR3::B06::CH004
- JT013::RICHCCR3::B06::CH013
- SB029::RICHCCR2::B00::CH029
- SB045::RICHCCR2::B00::CH045
- SB083::RICHCCR2::B02::CH035
- JB089::RICHCCR2::B05::CH041
- JB135::RICHCCR2::B06::CH040

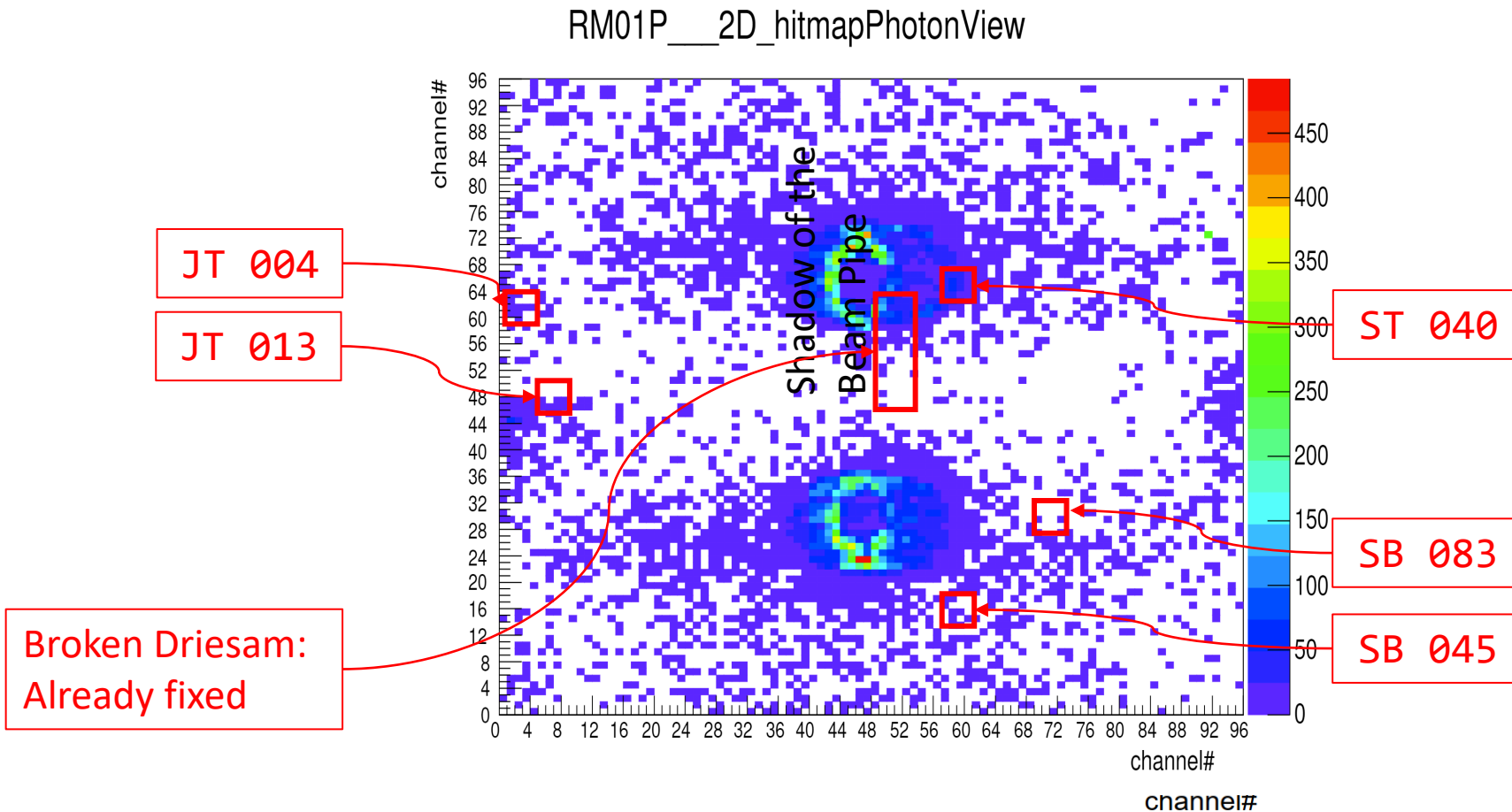
Changed to:

- ST040::RICHCCR2::B13::CH001
- JT004::RICHCCR2::B13::CH002
- JT013::RICHCCR2::B13::CH003
- SB029::RICHCCR2::B13::CH006
- SB045::RICHCCR2::B13::CH004
- SB083::RICHCCR2::B13::CH005
- JB089::RICHCCR2::B13::CH007
- JB135::RICHCCR2::B13::CH008

All Working Now!



# Checks of the MAPMTs with LED



- All the PMTs HV and the broken Driesam has been fixed.
- Tentatively known broken PMs and FEE has signal.
- Need better statistics.

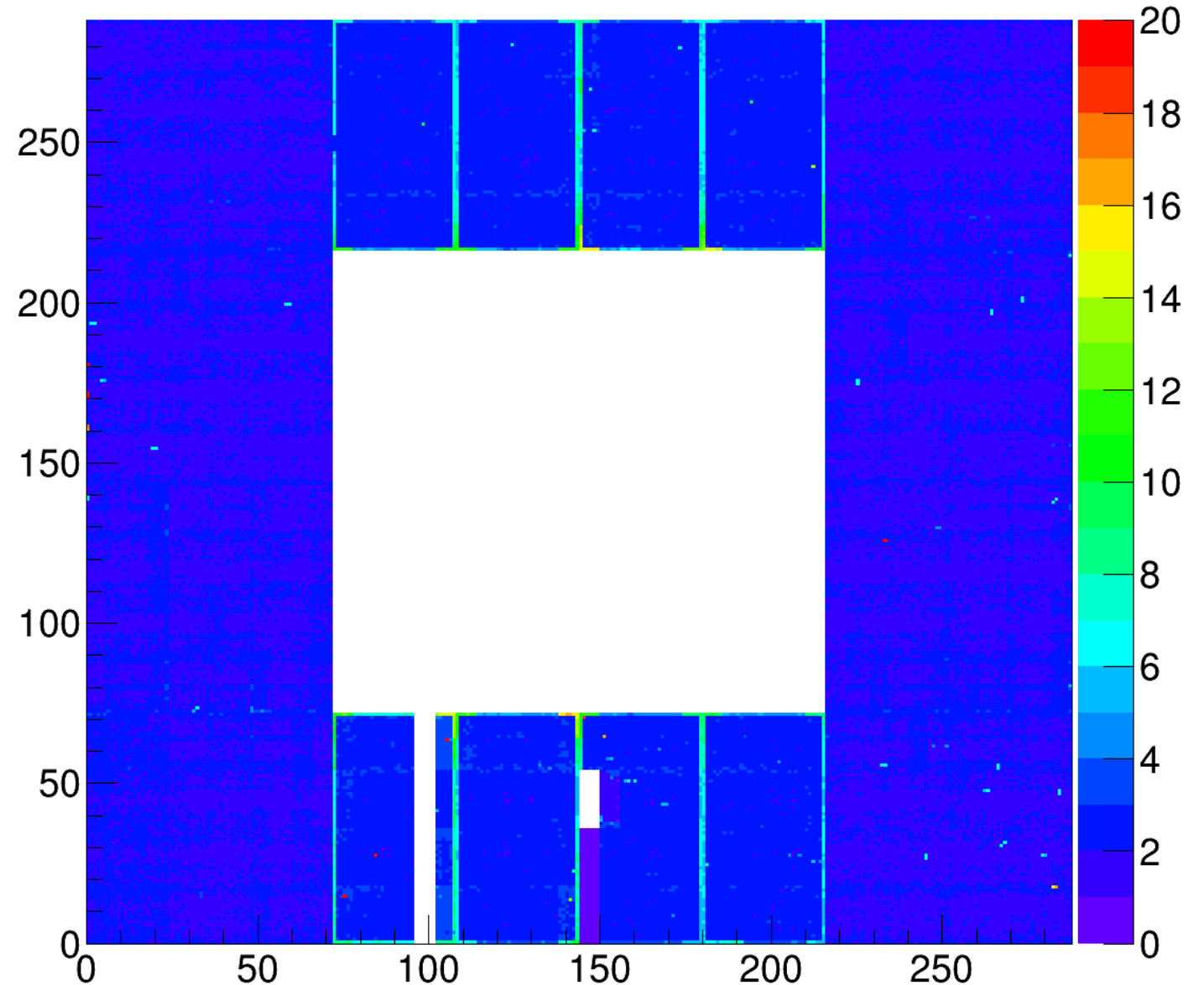
# MWPCs and Hybrid HV

- New HV modules for MWPCs are mounted.
- HV tested and connected for all the channels.
- Hybrid modules are tested.
- The HV module for PD2S2 with one problematic channel has been replaced by a similar module rented from electronic pool.
- The faulty module will be sent to repair.
- HVCS commissioning ongoing! [Thanks to Gergo].

## APV FEE Status Before

- The whole cards were just not properly inserted ADC connectors.
- The CHIP not functioning nice was due to a PIN of the ADC connector in the APV motherboard.
- Mauro has fixed the problem with Fulvio and Stefano.

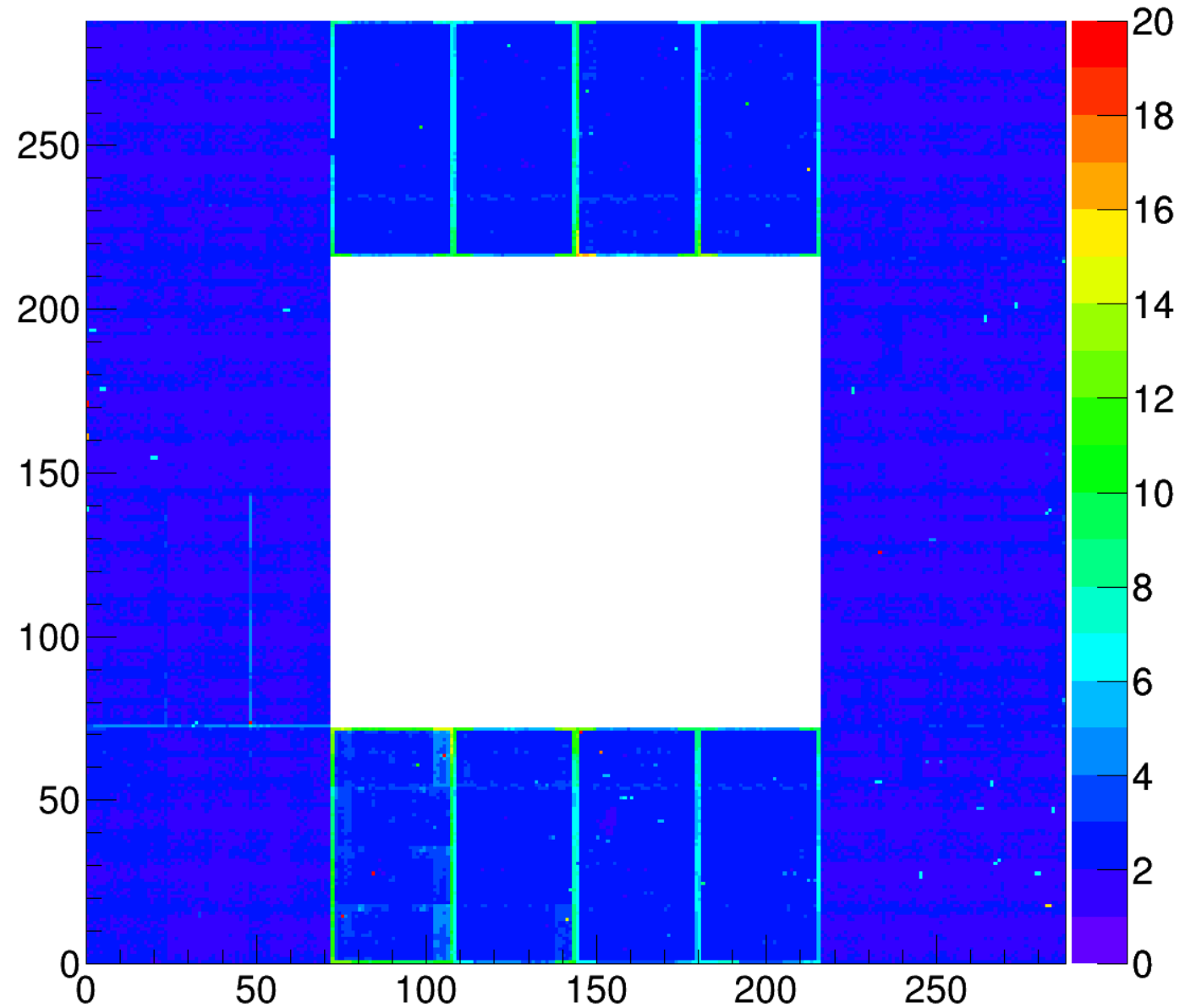
Rich\_APV\_2D\_a2CM\_sig\_all



## APV FEE Status After

- Pedestal analysis coming soon

Rich\_APV\_2D\_a2CM\_sig\_all



# Conclusion

- HV LV and FEE for all detectors [MWPCs, Hybrids and MAPMTs] are up and working without problem.
- Gas detectors not yet tested with nominal voltage → Waiting for CH<sub>4</sub>
- Final checks with beam is ongoing.
- CH<sub>4</sub> filters yet to be get back from CERN Gas department.
- C<sub>4</sub>F<sub>10</sub> has been cleaned and ready to be filled before data taking.





THANK YOU