

# SBS Front Tracker Status

E. Cisbani / RM / R

## SBS Weekly Meeting

2015 Dec 16

BA=Bari  
CT=Catania  
GE=Genova  
LE=Lecce  
RM=Roma-ISS

E=Engineer  
P=PhD Student  
R=Researcher  
S=Student  
T=Technician

E. Bellini / CT / R  
S. Colilli / RM / T  
F. Giuliani / RM / T  
A. Grimaldi / CT / T  
F. Librizzi / CT / R+T  
M. Lucentini / RM / T

P. Musico / GE / E  
R. Perrino / BA+LE / R  
L. Re / CT / S  
F. Santavenere / RM / T  
D. Sciliberto / CT / T  
C. Sutura / CT / R

# Delta from previous report

## Module assembling

- 3 new modules available for testing in Rome (total of 10 modules available, 1 damaged)
- Coming modules will use aluminized mylar windows

## Chamber integration

- 2nd chamber assembled at JLab;
- rework on 1st chamber (glue layer added all around the module frame)

## Electronics/DAQ

- Paolo presentation (next)
- Analyzer/CODA-MPD (with Danning and Alexandre): data decoder for analyzer integration started

# 2<sup>nd</sup> chamber in JLab / Transportation

Used small filters (Millipore 0.2 um) instead of gas sealing to mitigate potential stress in unpressurized area.

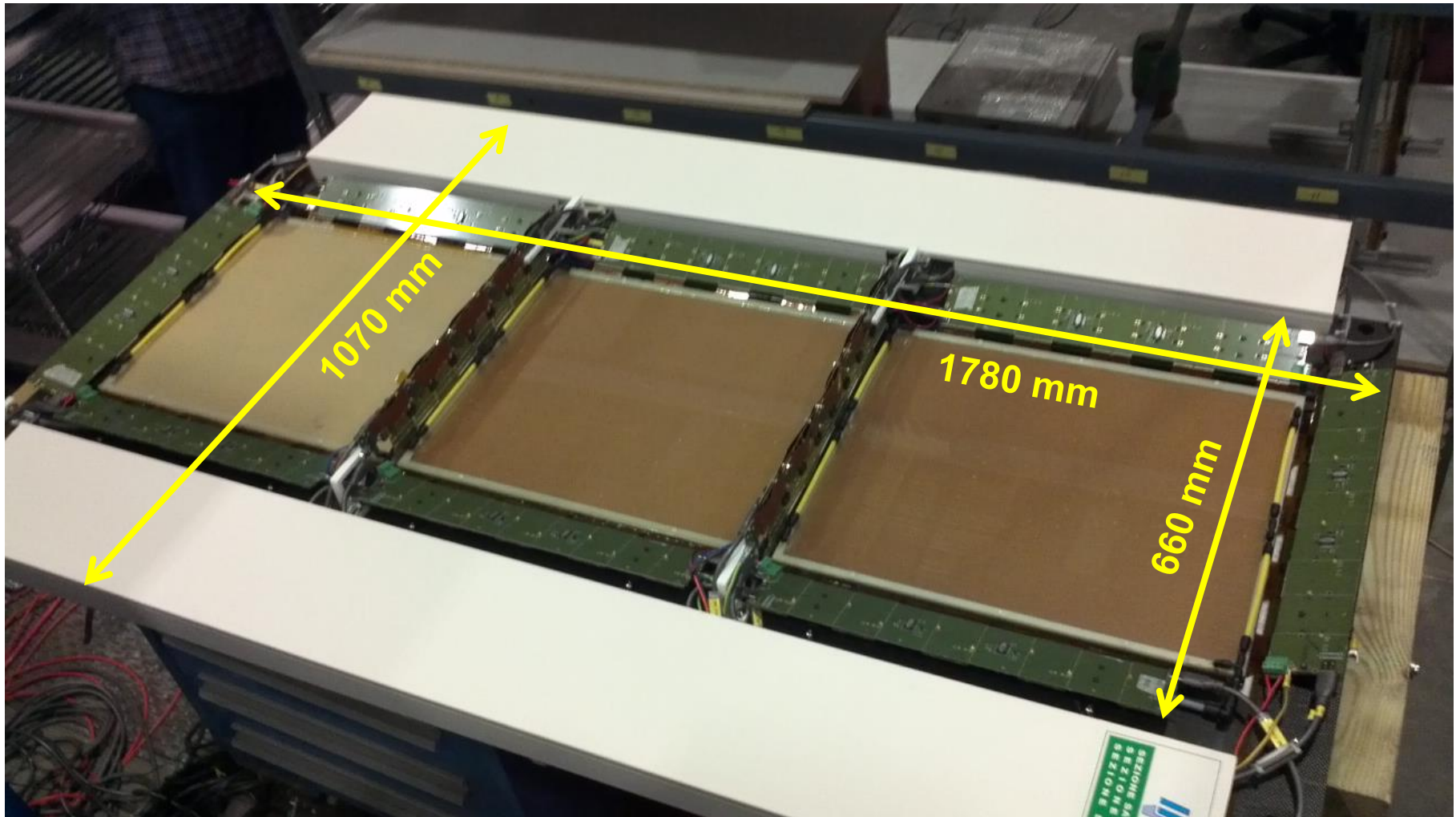


Visual inspection after delivering in JLab:

One out of three modules shows visible pattern of the spacers on the drift foil.



# 2<sup>nd</sup> chamber in JLab / Assembled

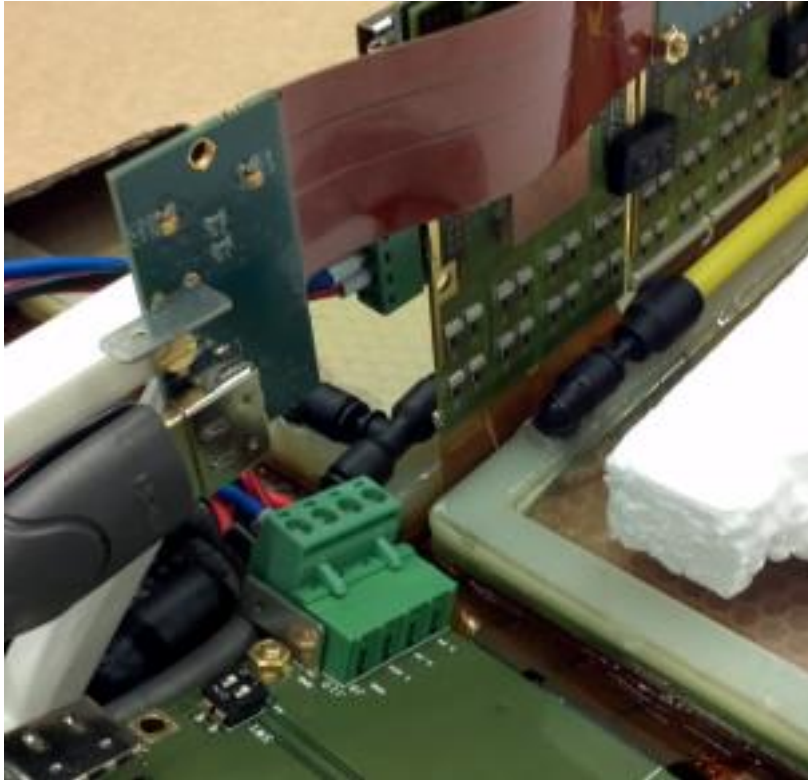


**«effective» thickness: 109 mm**

**Included: Electronics, low voltage, GND, gas distribution, High Voltage distribution**

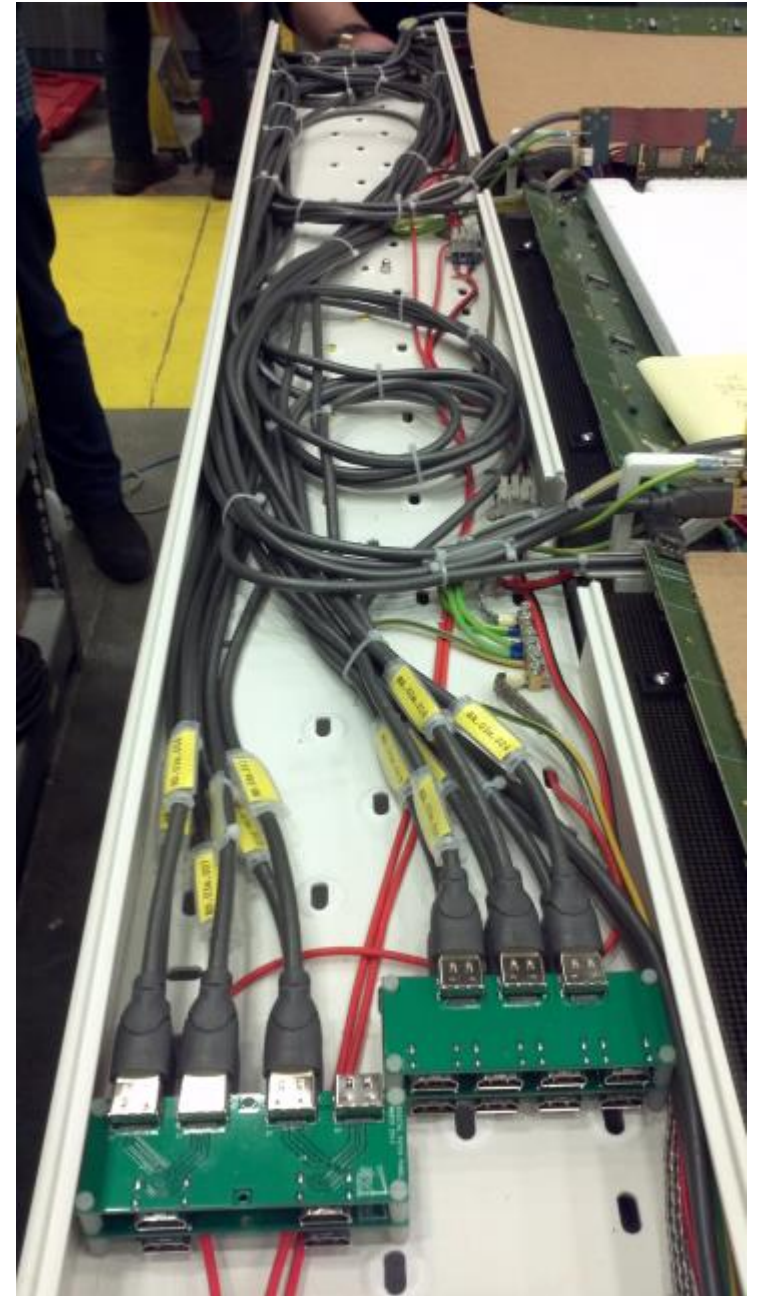
# 2<sup>nd</sup> chamber in JLab / Details

3 m long HDMI cables  
(12 each side)



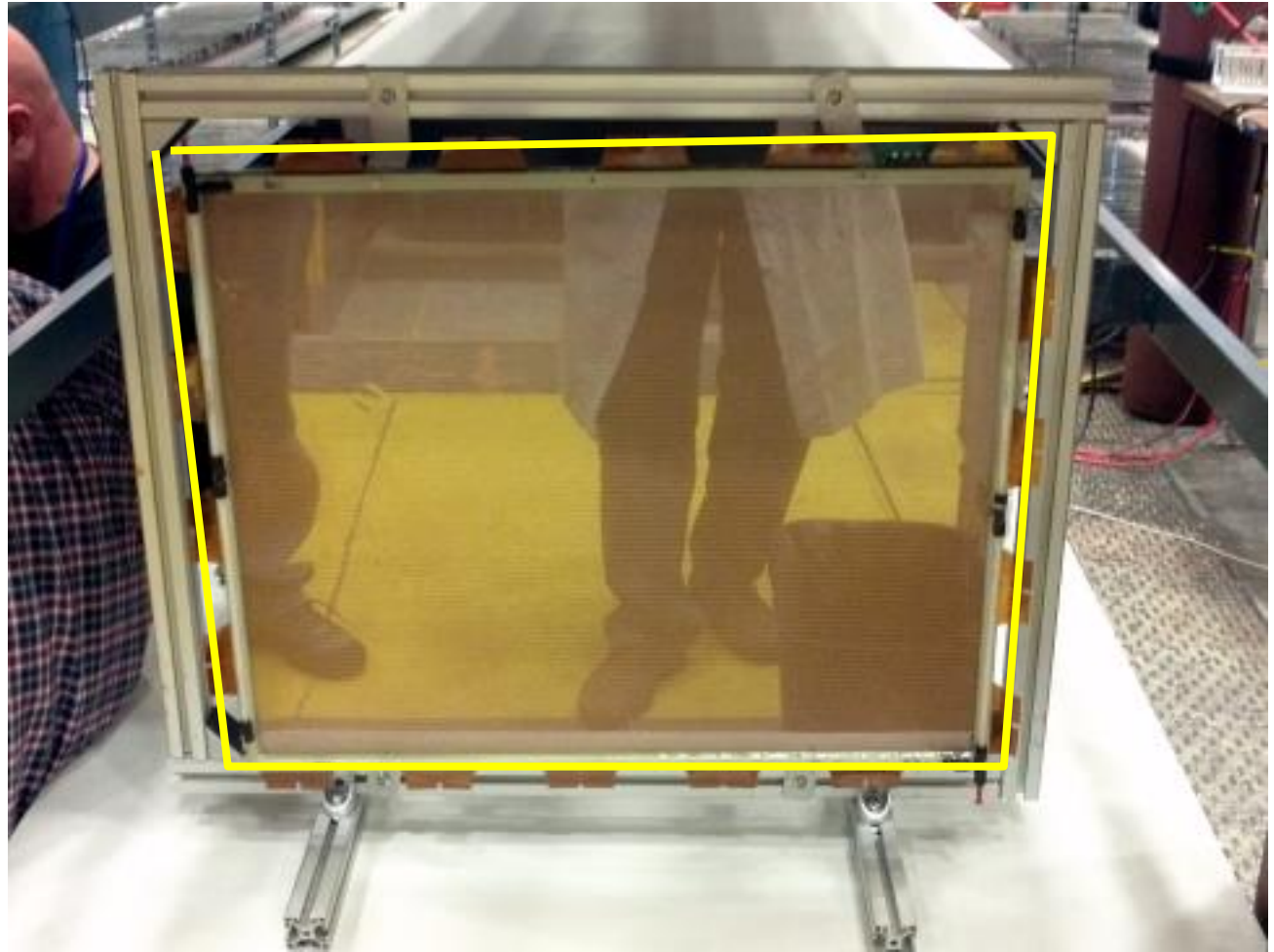
Distance between modules < 7 mm

Mechanical alignment at the level of 1 mm

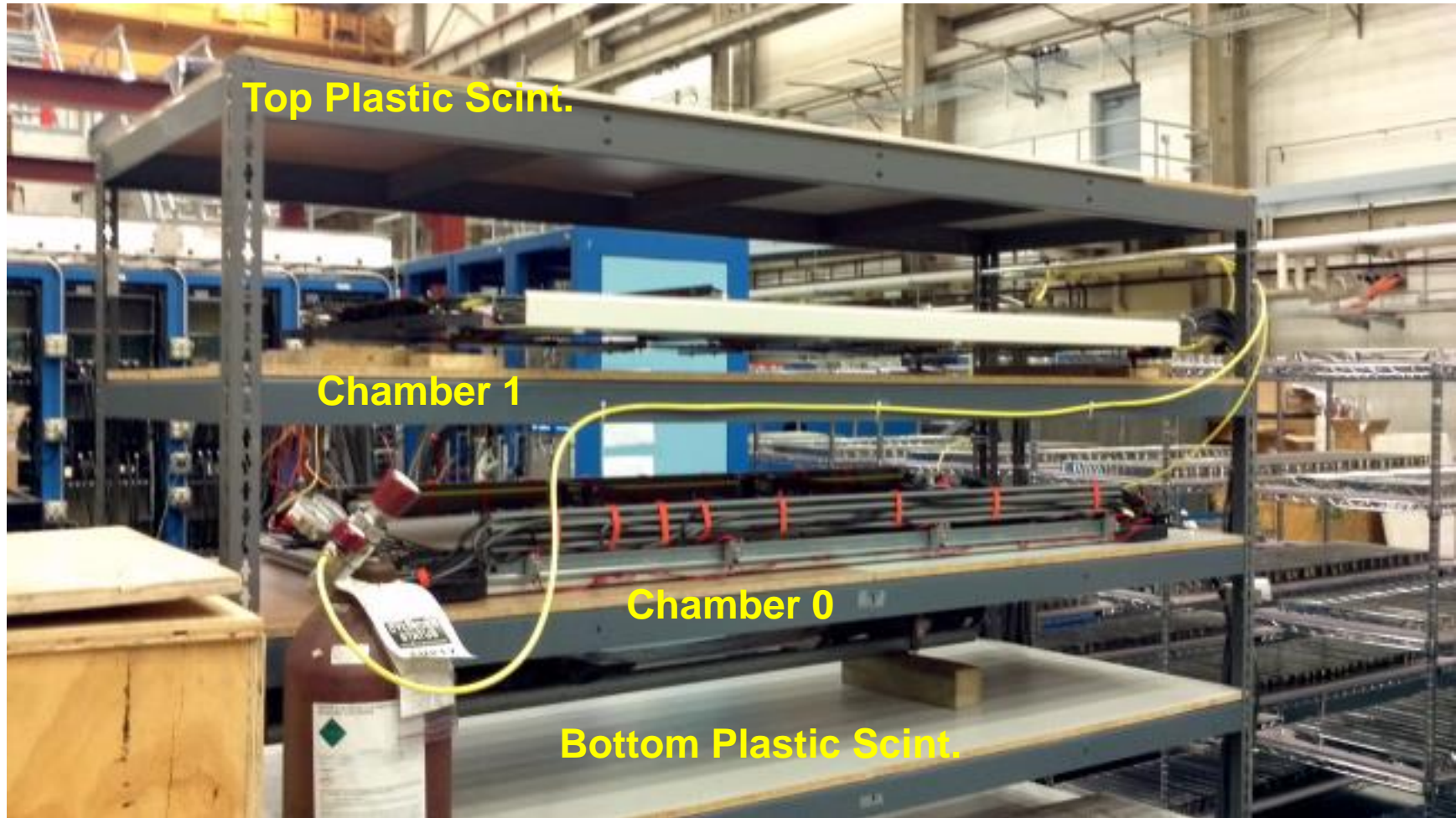


# 1st chamber rework

The three modules have been taken apart and «re-glued» along the frame sides:



# Cosmic test stand



**Gas, Electronics, Low Voltage – connected, HV ready to be connected**

Two scintillators (from S1) in place, need to be connected

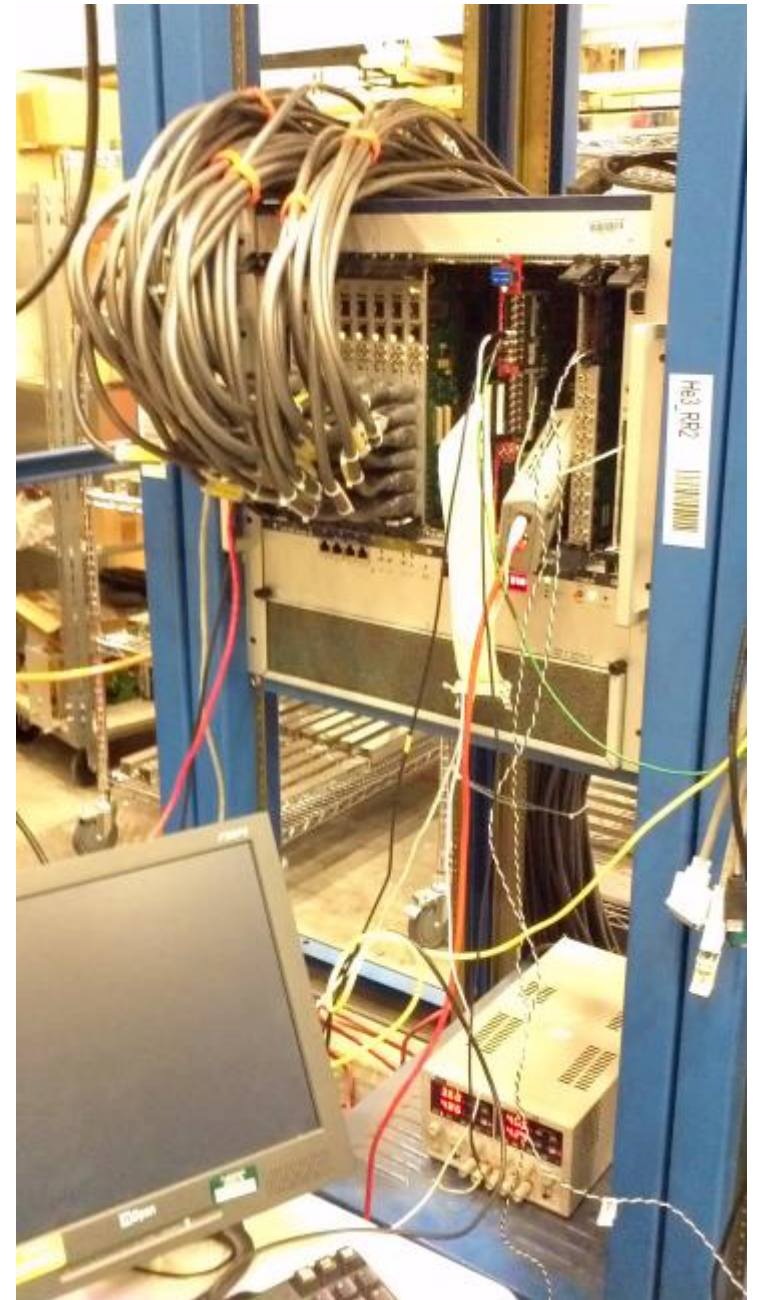
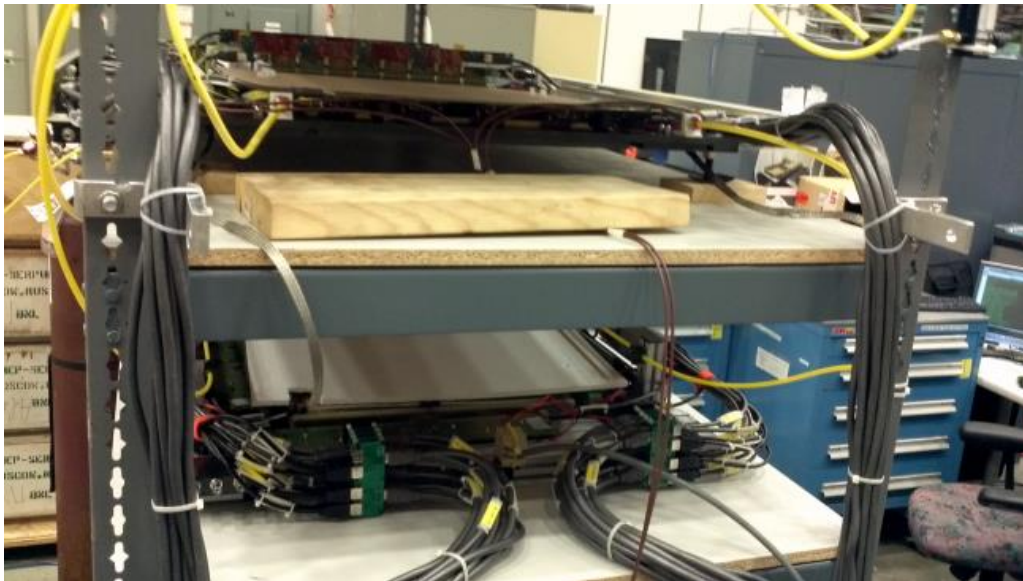
# Cosmic test setup / details

48 x 20 m long cables

8 MPDs

2 Low Voltage lines

Ar/CO2 gas pipe (with flow regulator)





# Work in progress

- Chambers test:
  - Low Voltage switched on yesterday (15/Dec), electronics configuration preliminary tested
  - High Voltage system ready, but not connected; likely will be switched on in the next visit
  - Cosmic trigger to be set-up; 2 scintillators are in place
- CODA MPD integration largely finalized thanks to Danning et al. (few minor details can be further improved)
- Analyzer MPD integration; MPD decoder class version 0 compiled but not tested yet
- Relatively large amount of cosmic data taken in Rome need to be analyzed
- 3 new modules are going to be HV trained in the coming weeks
- Module assembling in Catania restarts in Jan/2016