



# TEST BEAM

m.bedjidian ipn-lyon

## 3 test beam runs in 2008

July, 7-17, PS T10,  $\mu$  and  $\pi < 10$  GeV

August, 3-11, SPS H2,  $\mu$  and  $\pi > 10$  GeV

November, 7-12, PS T9

Participants: Lyon, LLR

who else?



# PS test beam: GOALS



- 5 GRPC, 3 from Russia + 2 made in Lyon with some notable differences like resistive planes (graphite, licron ..), gas alimentation, HV input ...
- Each RPC equiped with 256 pads PCB with 4 Hardrocs
- Counting rate capabilities: 100 Hz, more?

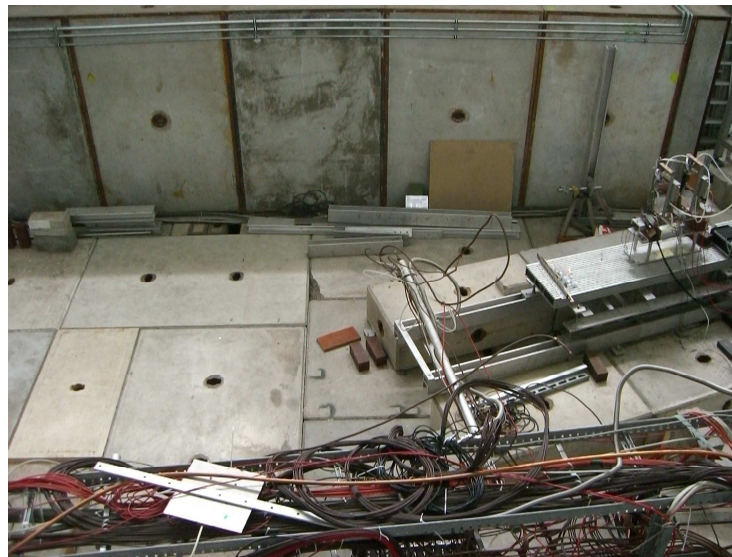
$\mu$ -beam: without the 2cm steel absorbers

- efficiencies, multiplicities, angular effect, gas mixture
- use of EUDET telescope (7x7mm<sup>2</sup>) Si pixels high precision on the hit position: 5  $\mu$ m, and XY table, to scan the detectors and study the 'edge' regions

$\pi$ -beam: with the steel absorbers in

# T10 beam

- $\pi, \mu < 10 \text{ GeV}$ , PID with Čerenkov counter
- rate:  $10^5$ - $10^6$  with 400 ms flat top, possibly down to few thousands range
- beam spot:  $1 \times 1 \text{ mm}^2$  up to  $10 \times 30 \text{ cm}^2$  in the downstream part of the zone





# Work to be done

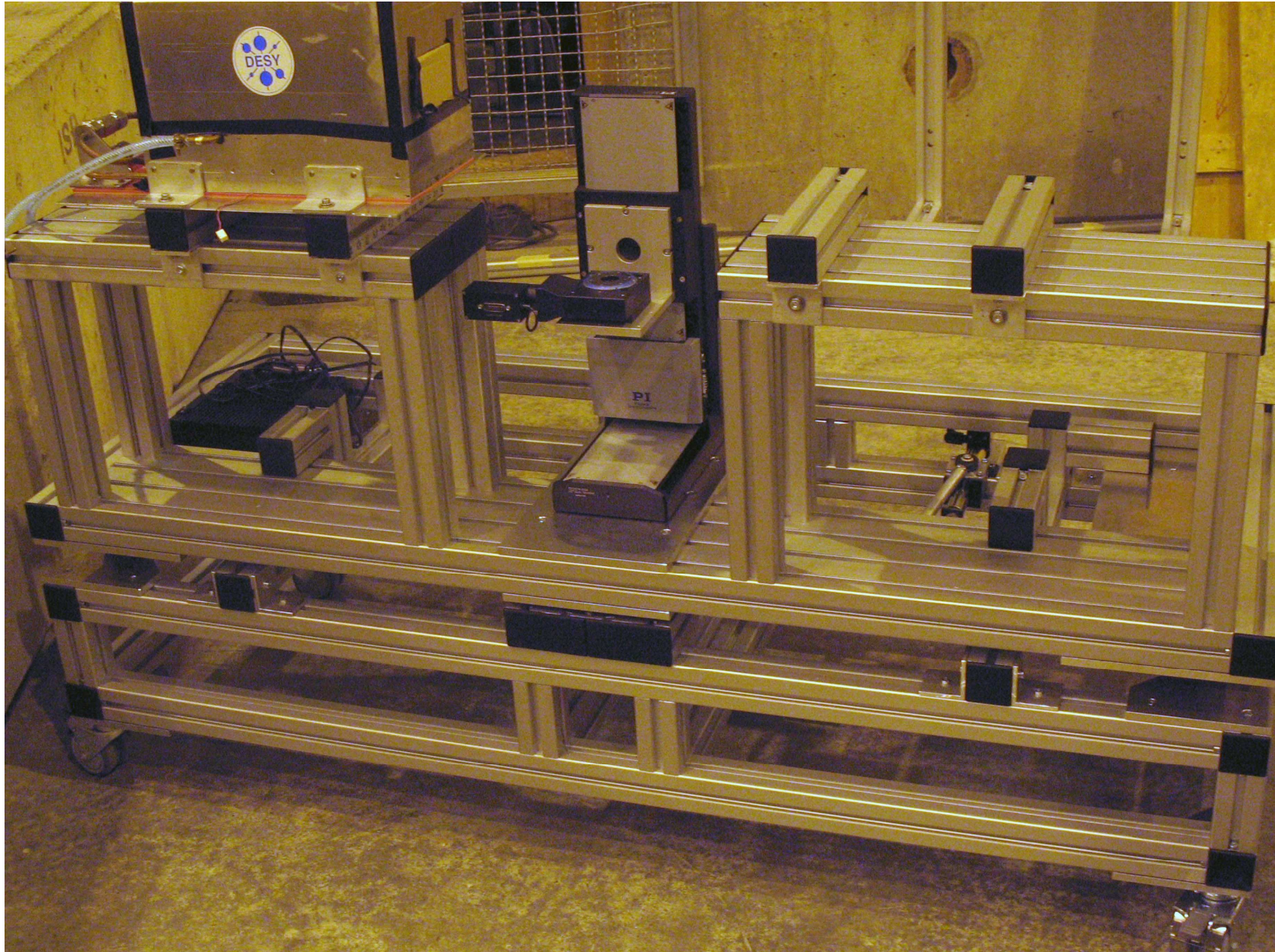
- Set-up consists of EUDET telescope with RPCs system
- Installation of the set-up in the downstream part of the beam line in order to obtain a wide beam spot up to  $10 \times 30 \text{ cm}^2$ .
- Gas system installation
- Installation of the scintillation counters triggering the RPCs
- DAQ with EUDET telescope
- DAQ with LABVIEW

# RPCs system



European DHCAL Meeting, CERN June 13, 2008

# Eudet telescope



# T10 area

