The FIDIAS Micromegas TPC

Plans for 2012 RD51 tests

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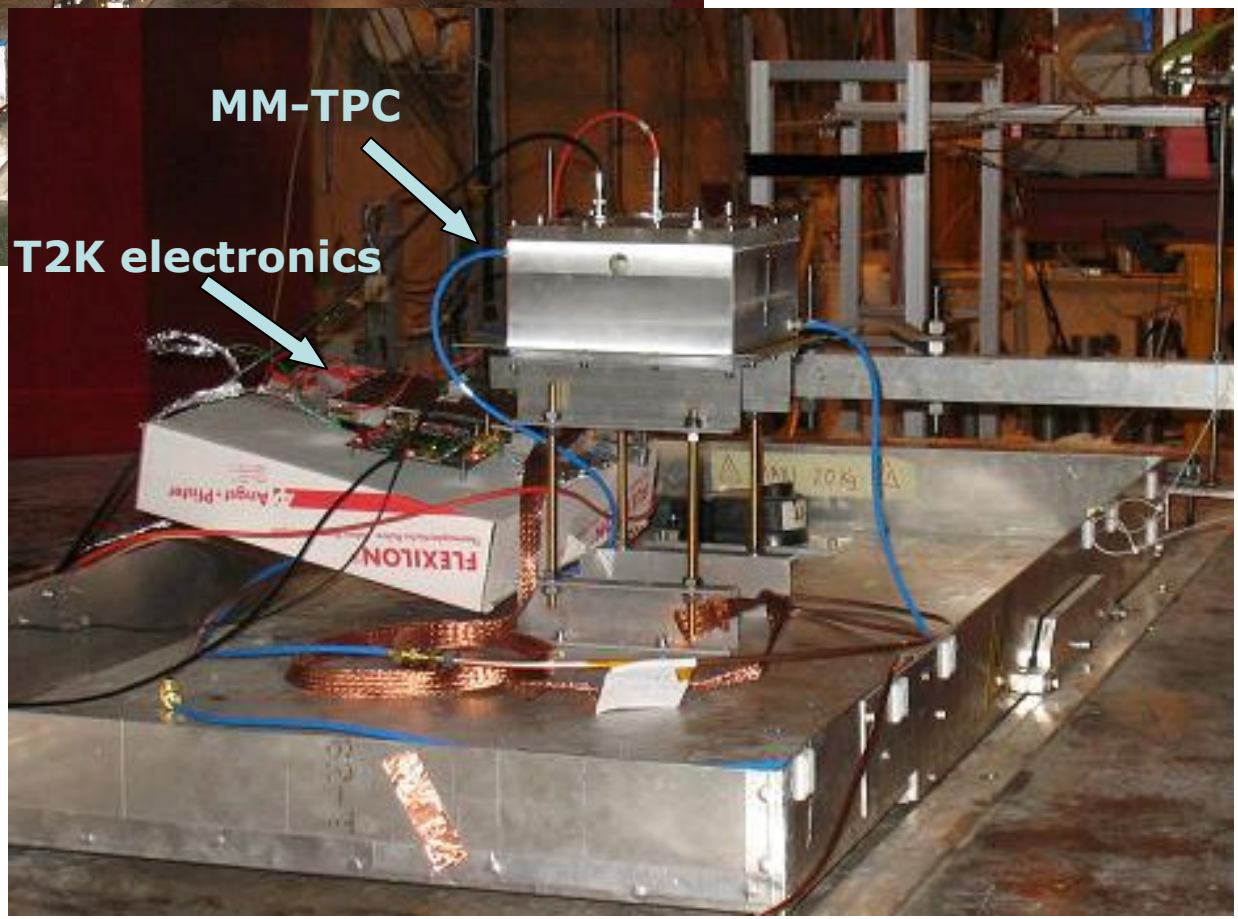
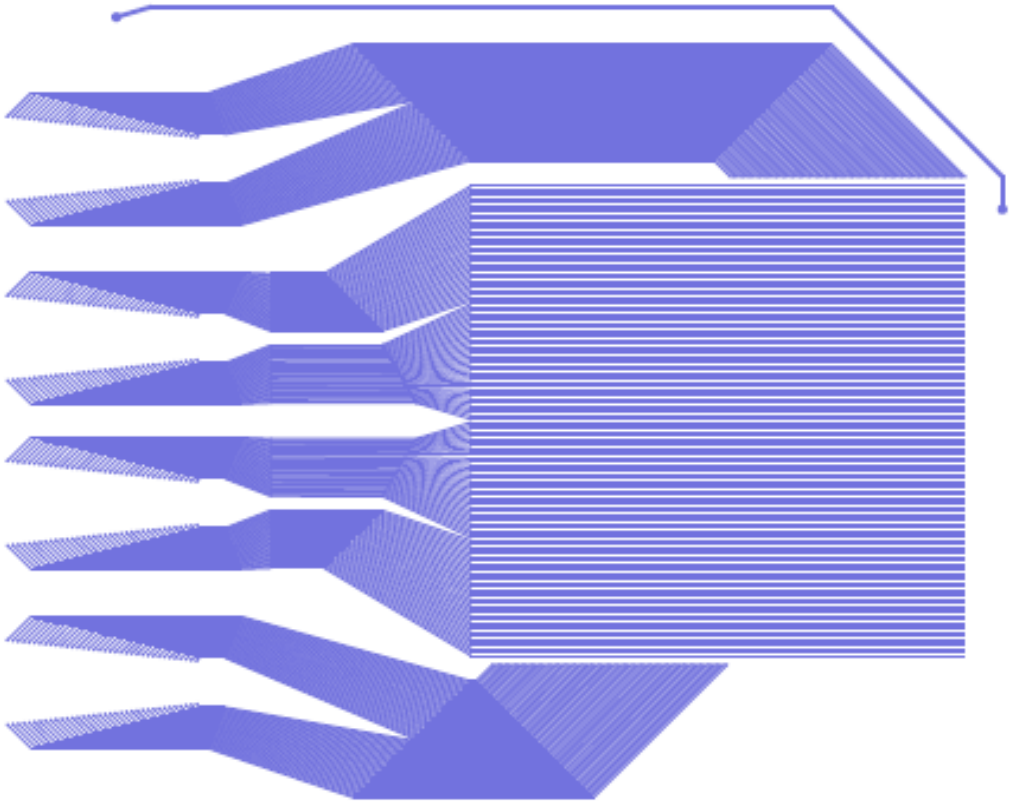
Inside Goliath in October 2010 RD51 test



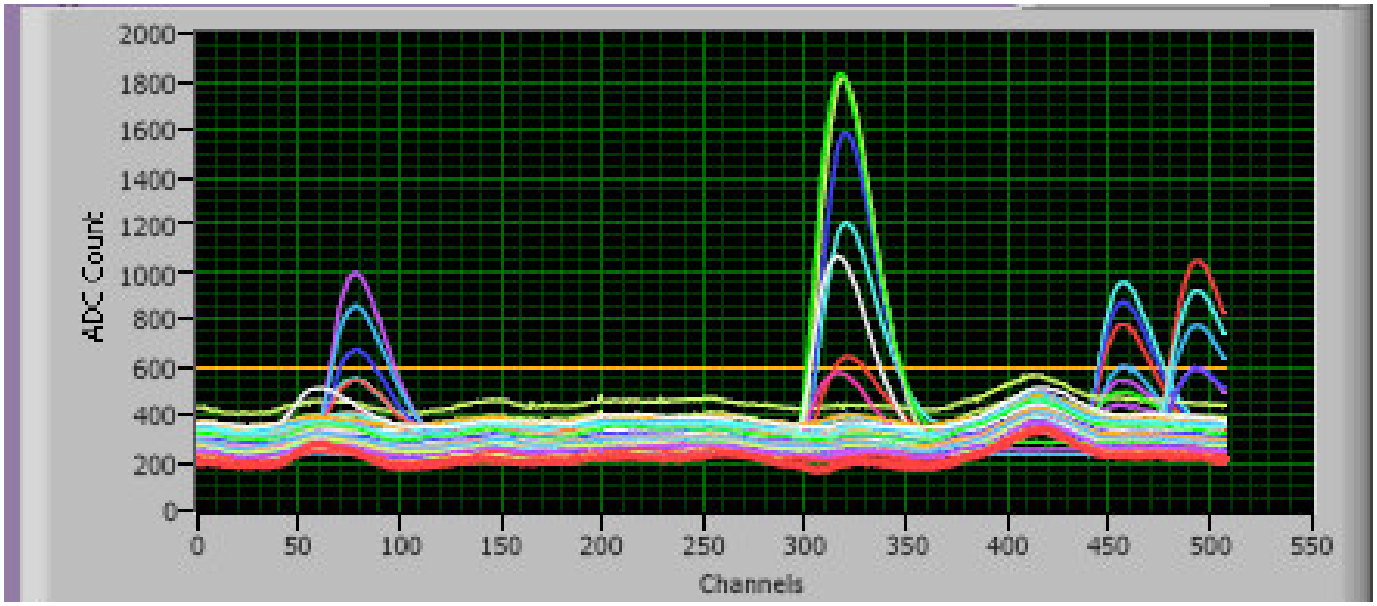
~20x20x10 cm³,
1cm thick aluminum box,
10 cm in drift direction

The X-Y Micromegas readout board design



Based on MIMAC's Saclay design
modified and constructed by Rui's lab at CERN.
2x144 strips, ~700 µm pitch

pions recorded by the MM-TPC during October 2011 RD51 test beam



Performance – obtained qualitative results

- **Huge noise – partially dealt by extra grounding and higher gain.**
- **Lack of proper data acquisition system - used two different systems: one reading ¼ of the detector at a time) and the T2K DAQ reading all channels (all X and half Y because of lack of cables) – frequent crashes**

Current situation and plans for 2012 RD51 tests

Current situation

- Current status of the detector will be reported by Paco this afternoon (new DAQ, beautiful performance…)

Plans for beam tests

- Use Argon/Isobutene gas, 2 channels of HV
- Run inside the Goliath magnet with various field intensities
- Need low intensity muon beams and hadron beams
- 3-4 run shifts