

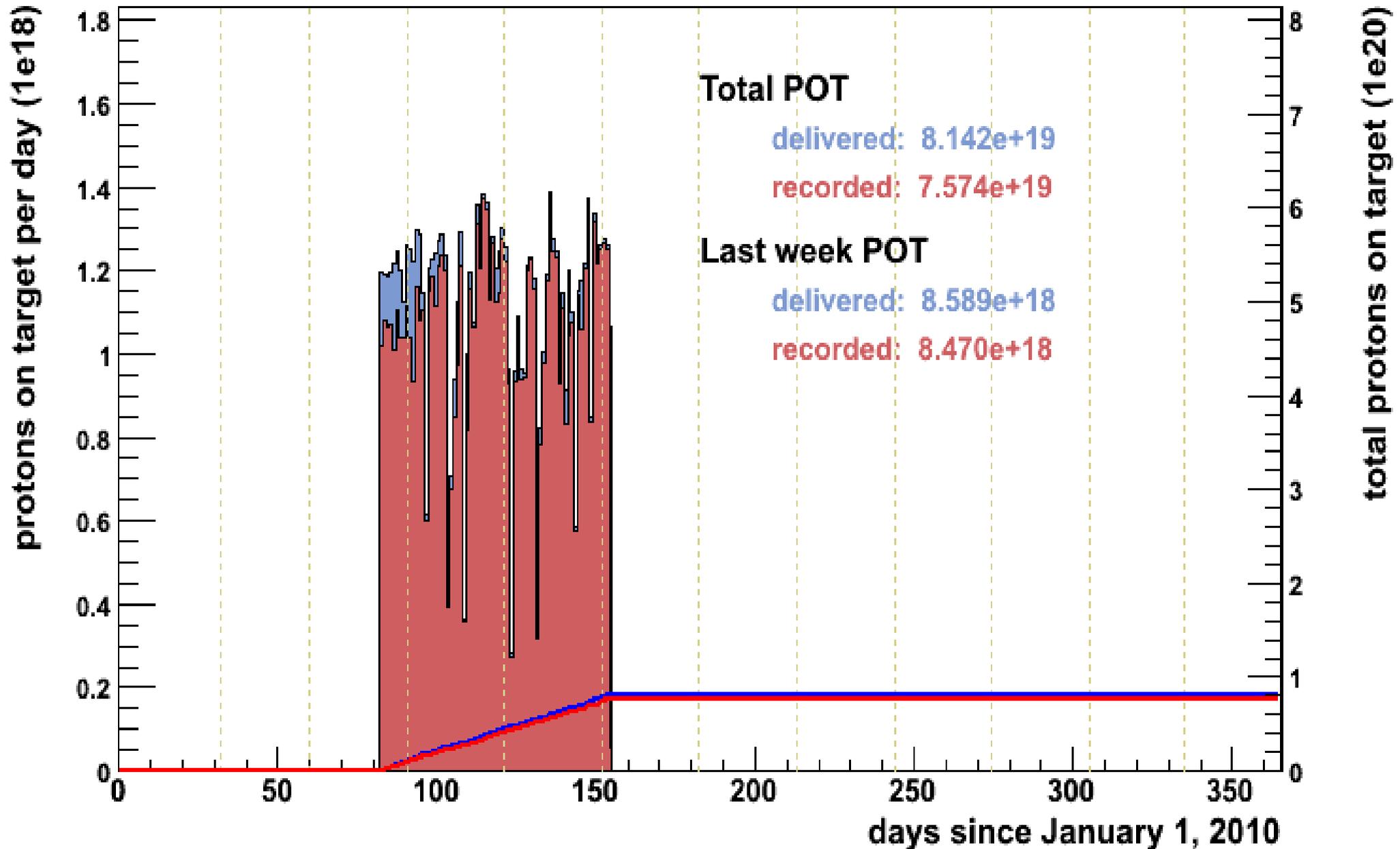
MINERvA Operations Report  
Fermilab AEM

June 7, 2010

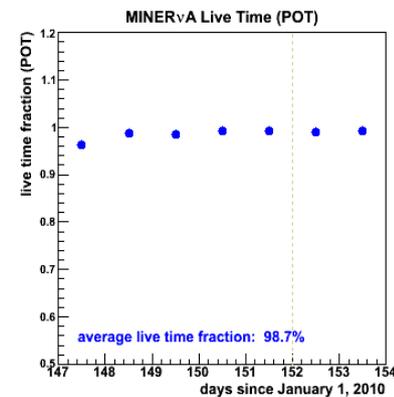
Jyotsna Osta

# MINERvA Low Energy Neutrino Run March 2010 - Present

## NuMI Delivered POT



date	recorded POT	Live Time	comments
May 27	1.32e+18	96.4%	
May 28	0.84e+18	98.8%	
May 29	1.32e+18	98.5%	
May 30	1.22e+18	99.3%	
May 31	1.25e+18	99.3%	
Jun 1	1.27e+18	99.0%	
Jun 2	1.25e+18	99.2%	
<b>8.47e+18</b>		<b>98.7%</b>	



# Notes & Summary

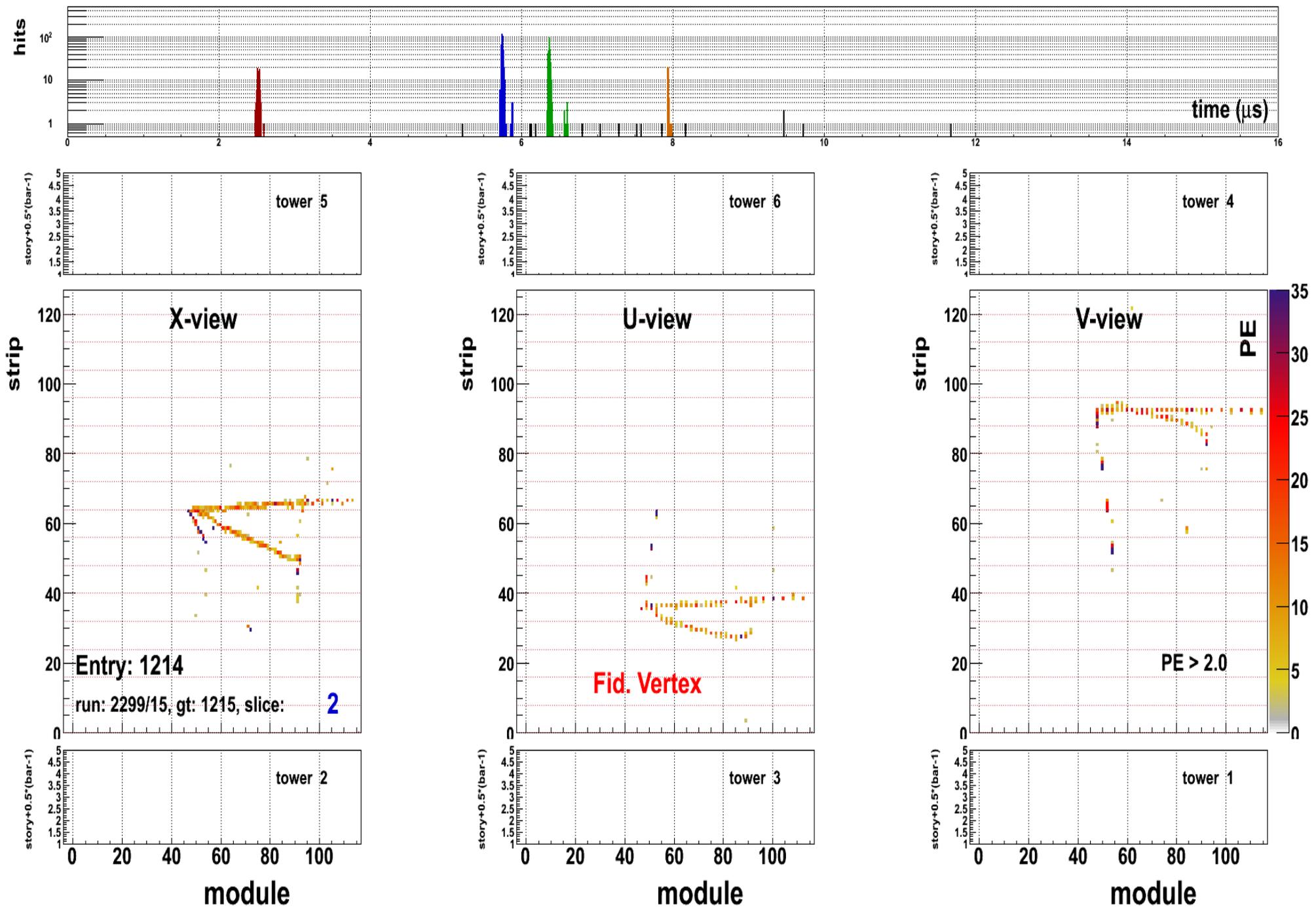
Last week :

- Very effective data taking during power outage at WH on Saturday
- Detector controlled and monitored remotely, by shifters at University of Rochester
- Local shifter present and in constant touch with the remote shifter from a conference room at CDF
- Only 30 min. downtime – network glitch at Univ. of Rochester
  
- Water target is at Wideband – being tested for leaks
- If everything goes well – installation in MINOS hall planned towards the end of this week

# Remote monitoring of MINERvA



# An event display from the weekend run



# Thanks a lot !

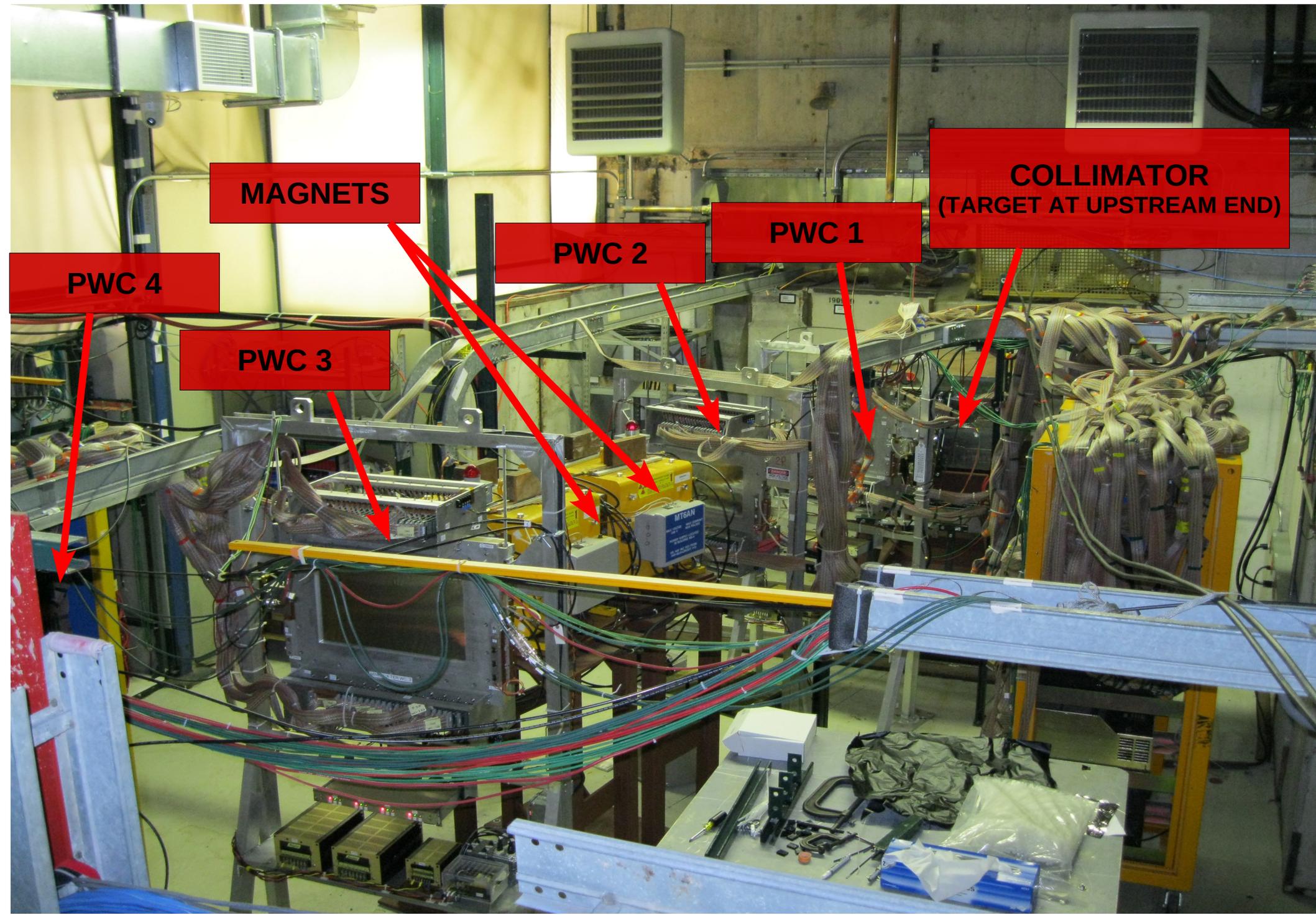
To everyone who helped make this remote data taking a success !

Jeff Appel, Dave Coder, Dee Hahn, Dan Johnson, John Kent, Art Kreymer, Lee Leuking, Bob Mau, Aria Meyhoefer, Dave Munson, Jon Urish, Mike Lindgren, Jeremy Wolcott and many others in the MINERvA and MINOS collaborations

# MINERvA Test Beam Effort

- The FTBF (Fermilab Test Beam Facility) provides a very wide-ranged momentum spectrum to its users !
  - 400 MeV – 120 GeV
- MINERvA, with support from FTBF, has setup a spectrometer for extracting a very low momentum, tertiary beamline at FTBF
  - 400 MeV – 1 GeV pions
- This pion beam will be used for determining the response of the MINERvA TB detector

# Beamline for the MINERvA TB detector



**MAGNETS**

**PWC 4**

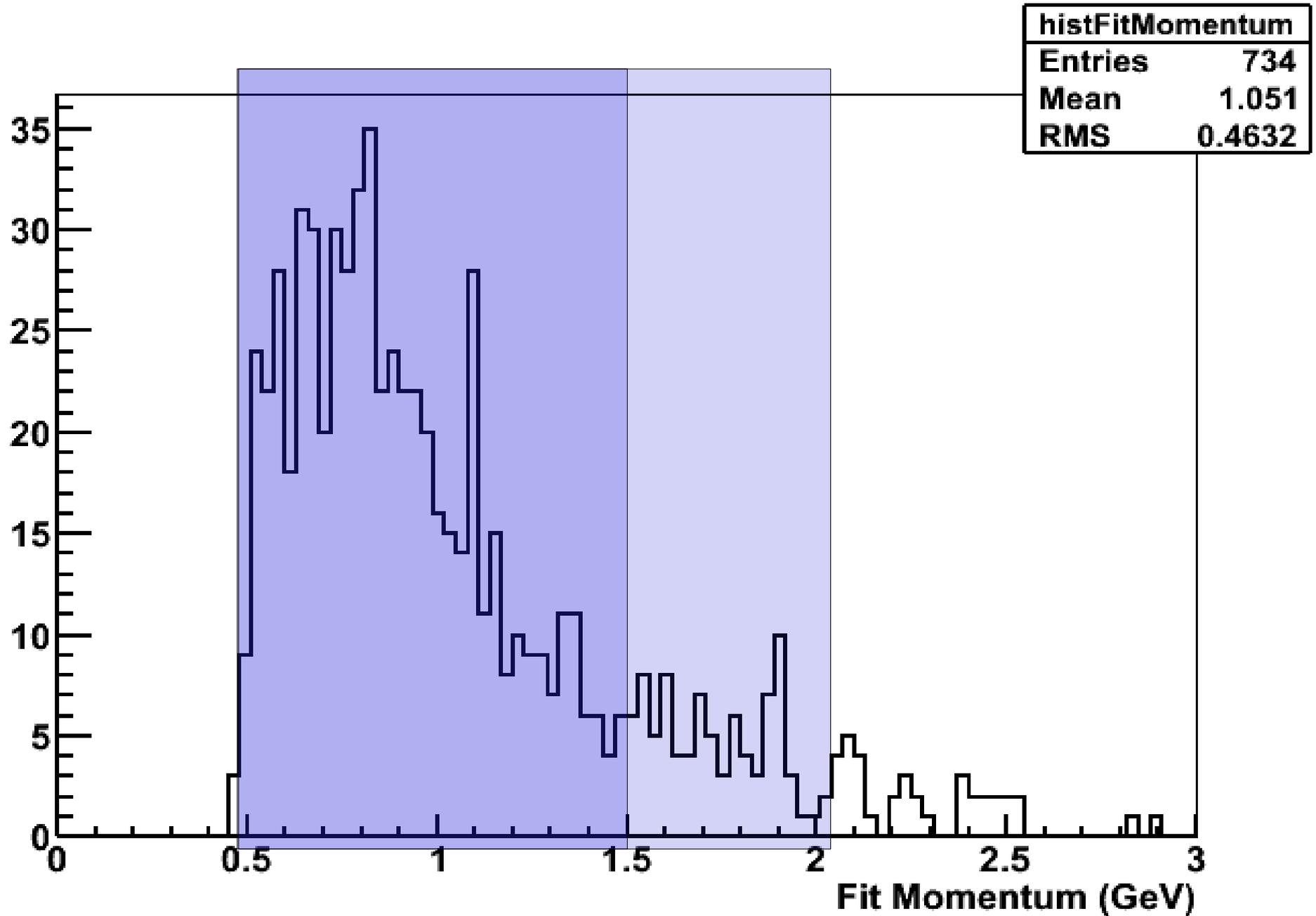
**PWC 3**

**PWC 2**

**PWC 1**

**COLLIMATOR  
(TARGET AT UPSTREAM END)**

# Preliminary Momentum Spectrum

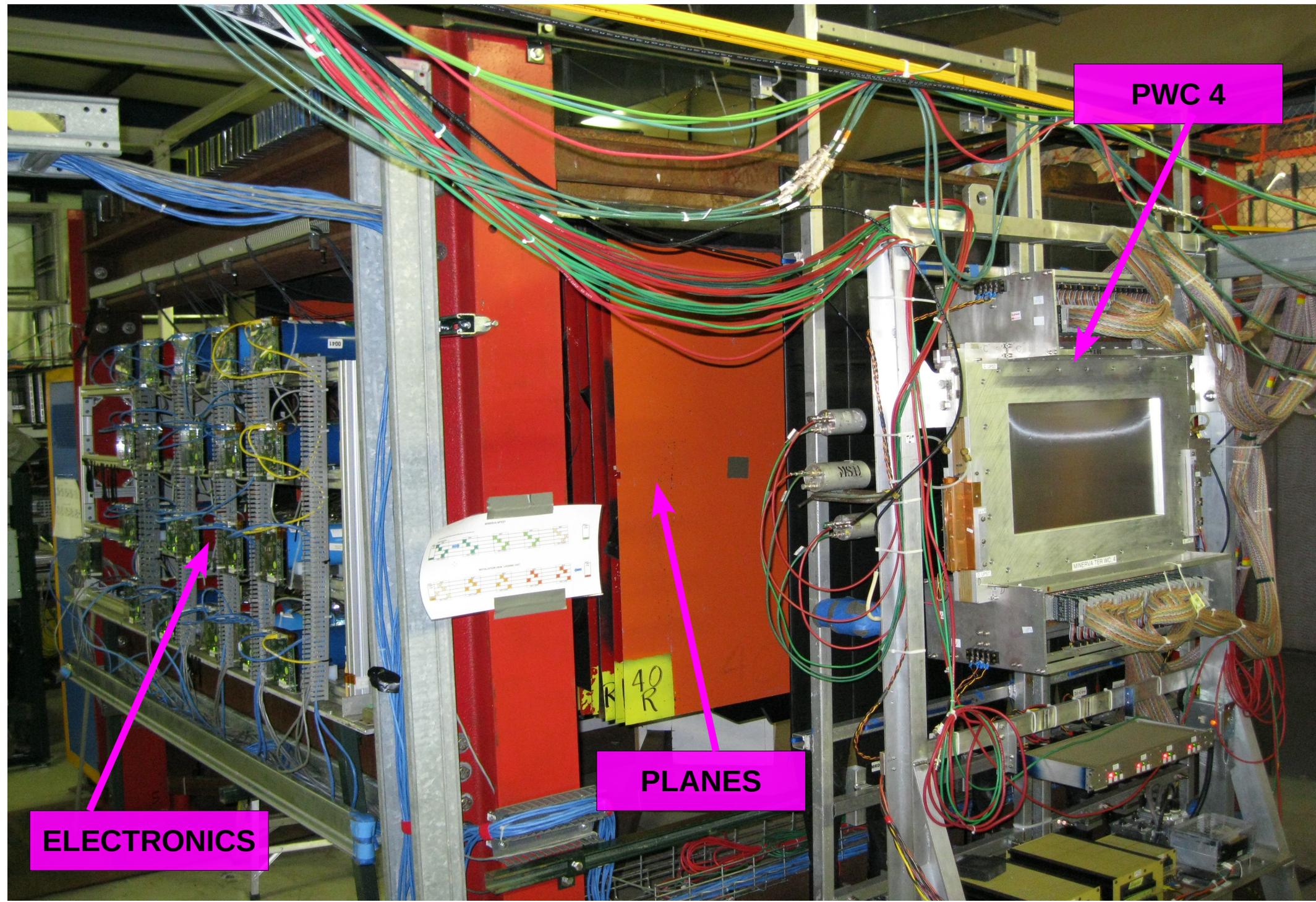


From data taken May 9, after imposing selection criteria  
in software

# April 20-May 11 TB run

- Goals of Apr 28-May 11 TB run –
  - Continue to develop & purify our beamline trigger based on our run experience from Jan. 2010
    - Event rate and beam content taken into account for optimizing throughput (events per spill) after software selection
  - Install and operate first 8 planes of detector
    - Each plane contains 64 strips – same strips as those used for MINERvA detector
    - Plane dimensions – 1.07 m x 1.07 m
  - Integrate MINERvA and beamline DAQs
- We succeeded in all 3, implemented a number of adjustments
- Estimates from Apr 28–May 11 TB run –
  - We are able to use 10-12% of triggers in the final analysis sample

# MINERvA TB detector as being installed

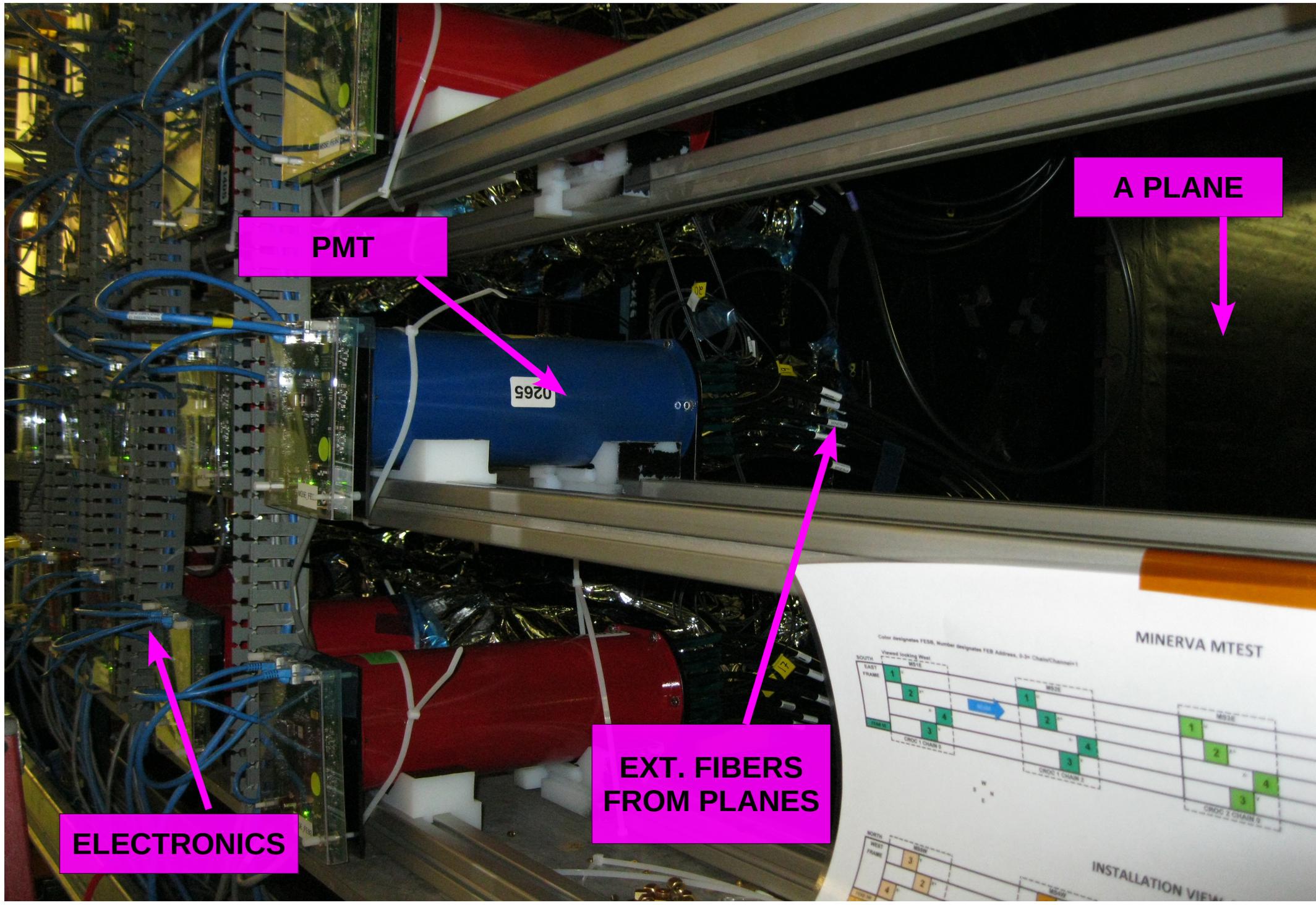


PWC 4

PLANES

ELECTRONICS

# Planes & PMTs & FEBs & cables .....

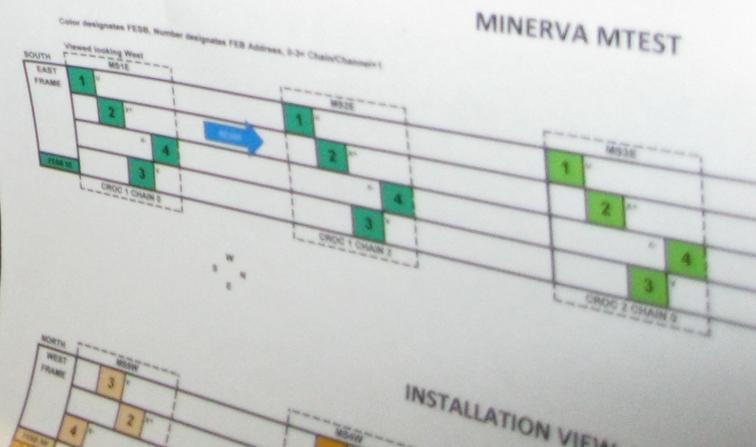


PMT

A PLANE

ELECTRONICS

EXT. FIBERS FROM PLANES



## June 7-July 19 run

- 32 detector planes installed at FTBF by June 5, 2010
  - MINERvA TB has taken some data on Sunday and today
    - Things look good so far !
- 8 planes have gone in today, full 40 plane detector should be reading out by tomorrow !
- A big thank you to John Voirin and his crew of mech. techs. in PPD for installing the TB planes !
- **Goal of T977 MINERvA TB experiment (June 7-July 19 run) :**
  - **Calibrate and understand the tracking & calorimetric responses of the MINERvA detector via this TB detector**