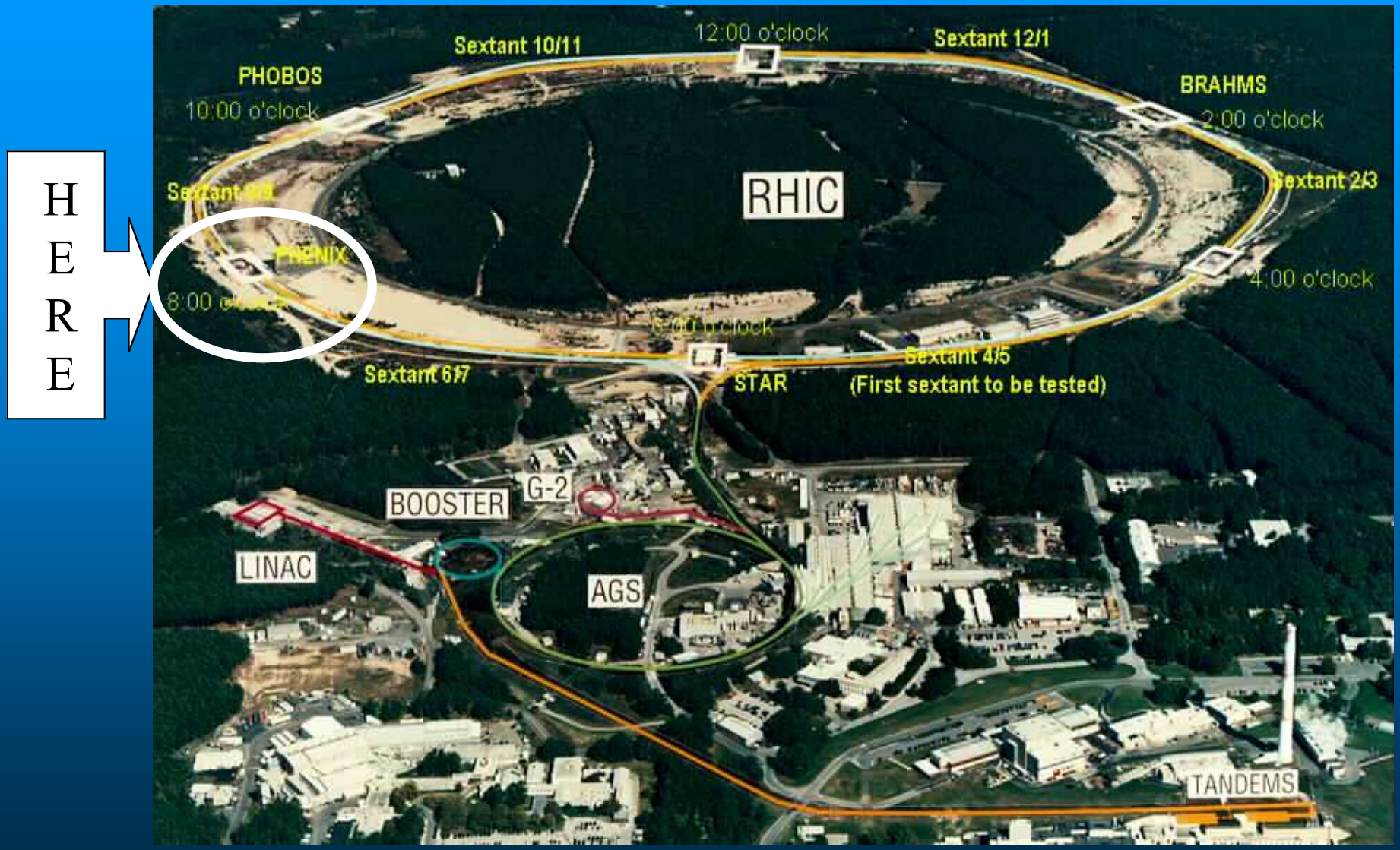
AGS - RHIC Users Meeting

July 29th - 30th 1999

http://www.rhic.bnl.gov/~afranz/talks/1999AGSRHICUM/index.htm

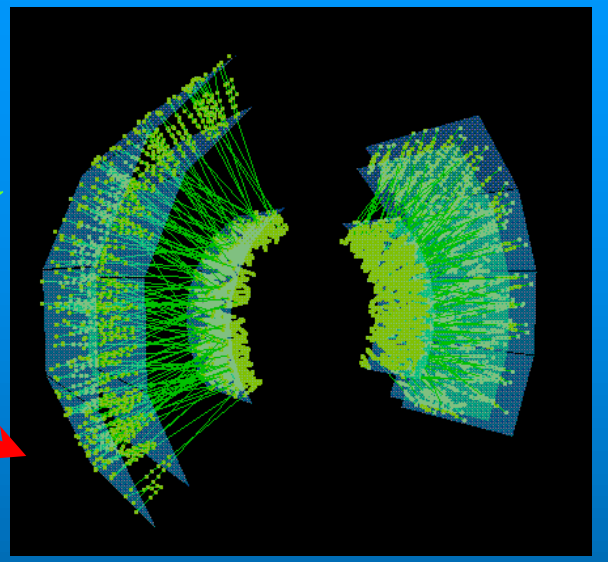
Where is PHENIX?



What does PHENIX measure?

- **Hadrons**

  Final-state "debris" as quark-gluon plasma returns to ordinary matter.



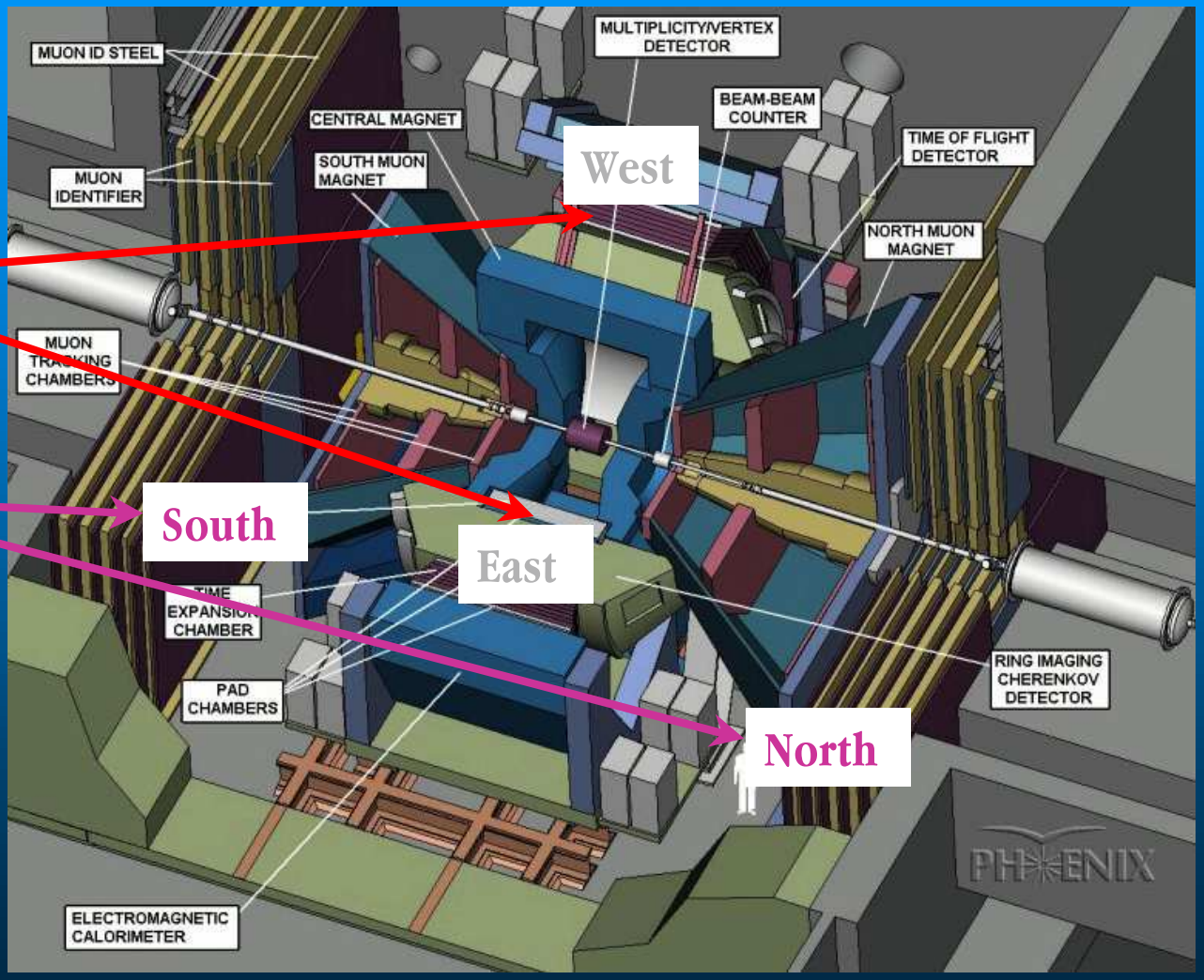
- Photons
  - "Real" γ
  - "Massive" γ^* (decays to e^+e^- or $\mu^+\mu^-$ pairs)
  - ➡The blackbody radiation from the collision
- **Vector mesons, especially J/ψ's**
  - **Standard candles in the collision debris**
  - **Look for their disappearance (~ melting)**

PHENIX the detector

@ "IP8" at RHIC

(Everywhere that fits):

- 2 "central" spectrometers
- 2 "forward" spectrometers
- 2 "global" detectors

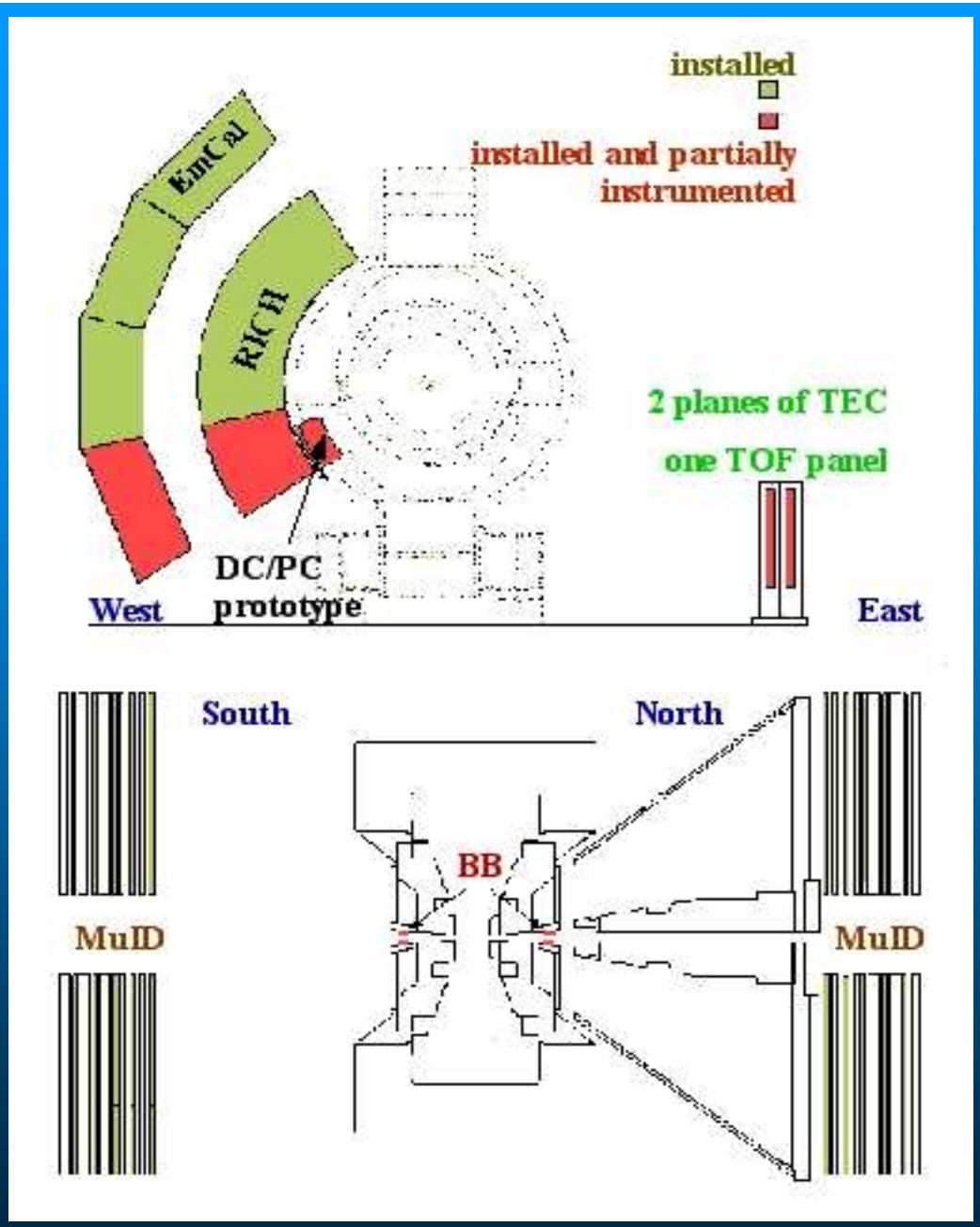


A piece of history

This week

Goals for the engineering run

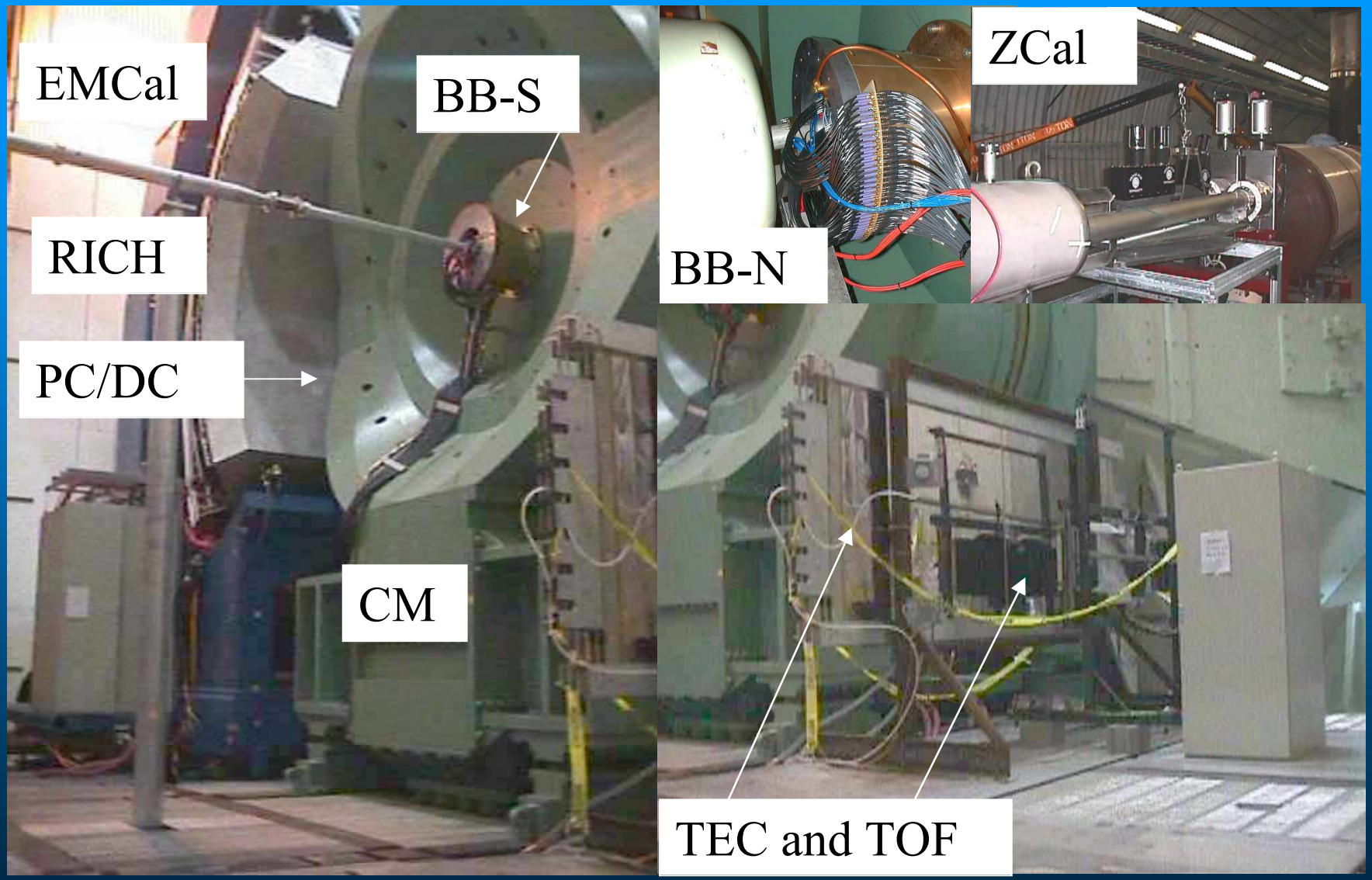
- Get as many detectors installed as possible.
- Try to operate them in the RHIC environment.
- Read them out using electronics available.
- Set up trigger/DAQ/run-control and use it with RHIC clock.
- Establish manuals and instructions.
- Train as many people as possible and run shifts
- ‘see’ collisions.



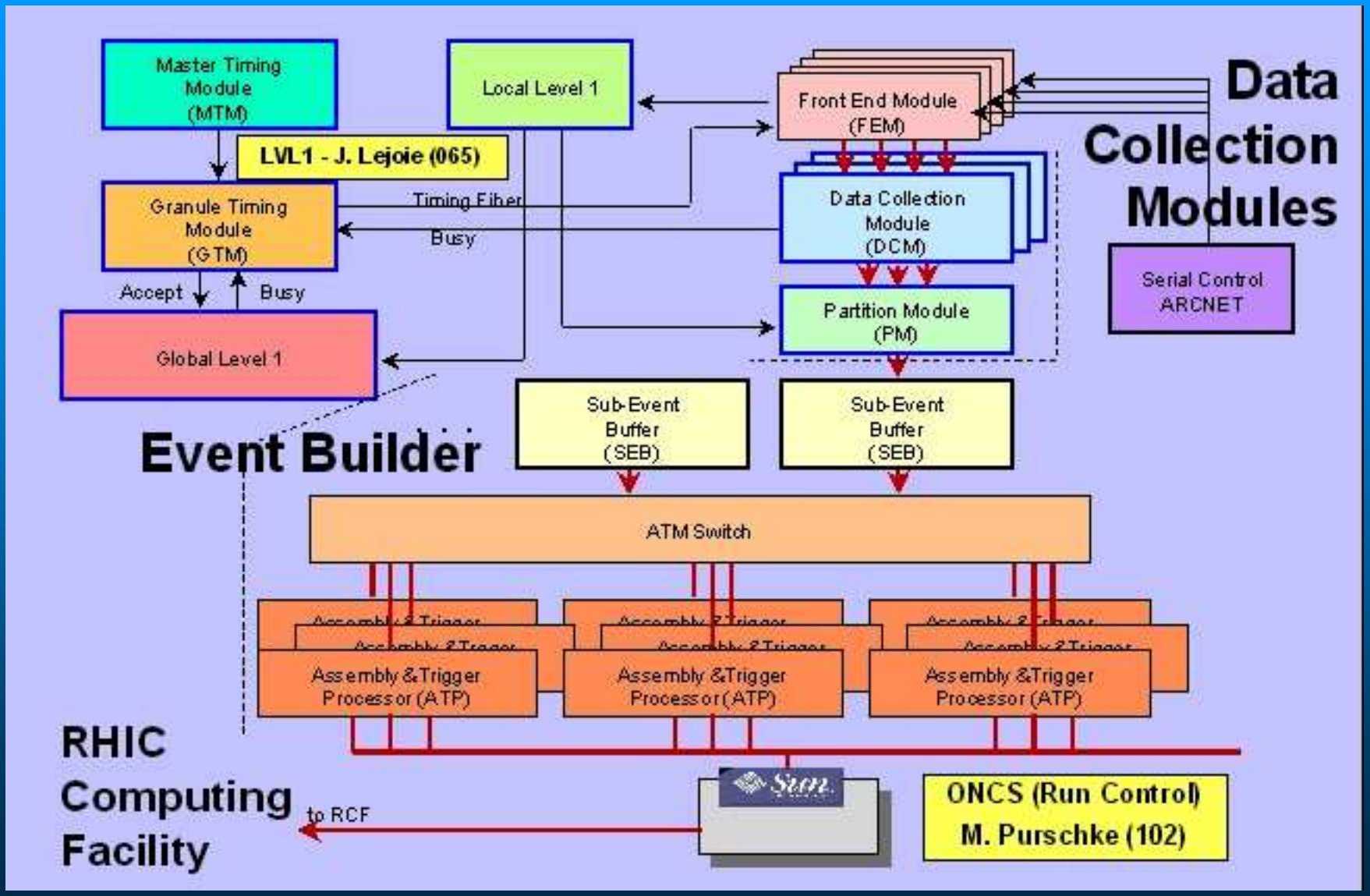
Detectors used during the ER

ZCal:	1 FEM, 8 channels
BB	4 FEM, 8 ch. each
DC	6 FEM
PC	2 FEM, 2160 ch. each
TEC	4 FEM, 64 ch. each
EMCal	2 FEM, 144 ch. each
TOF	3FEM, 16 ch. each

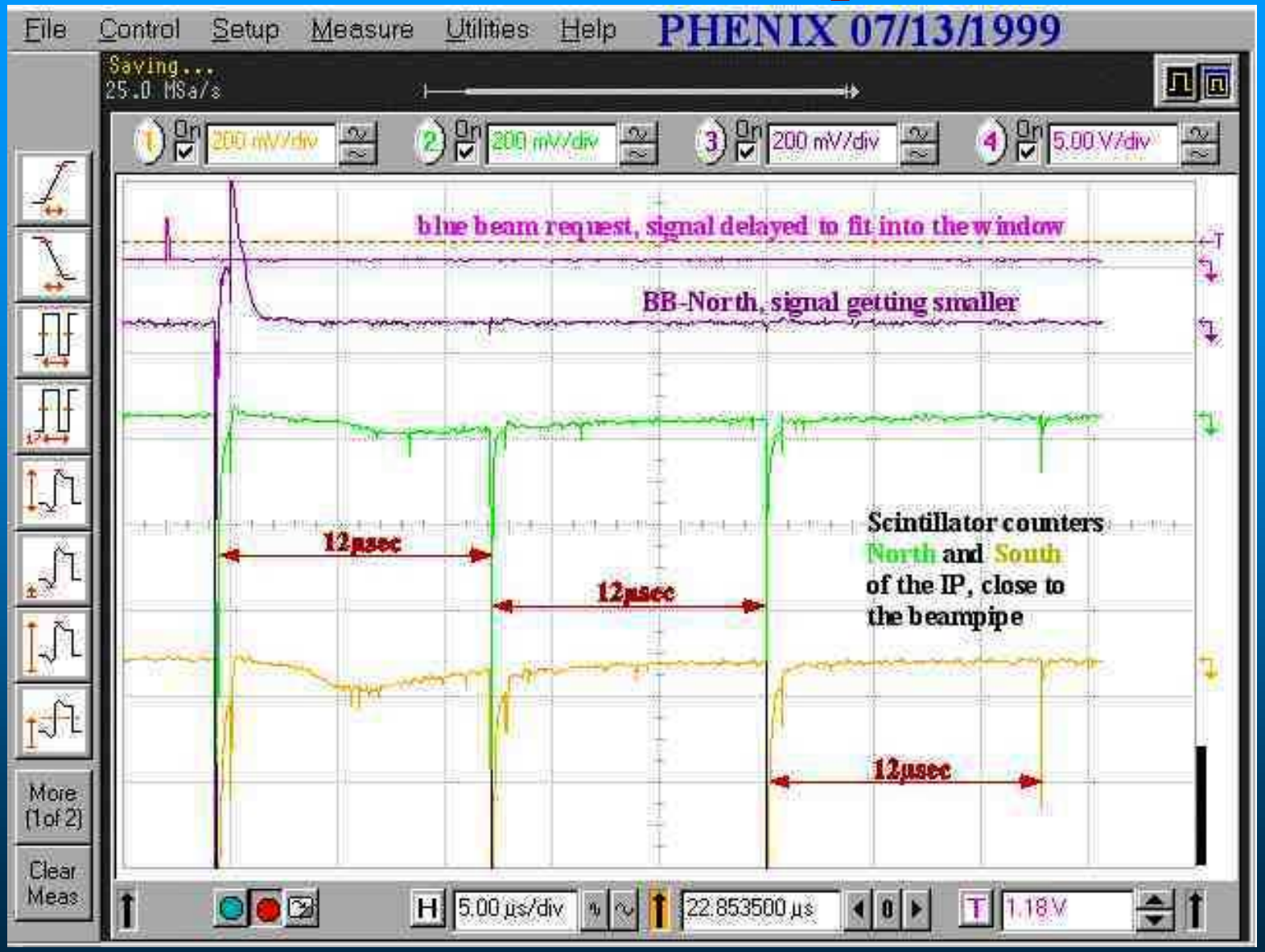
In- and out-side the IR ...



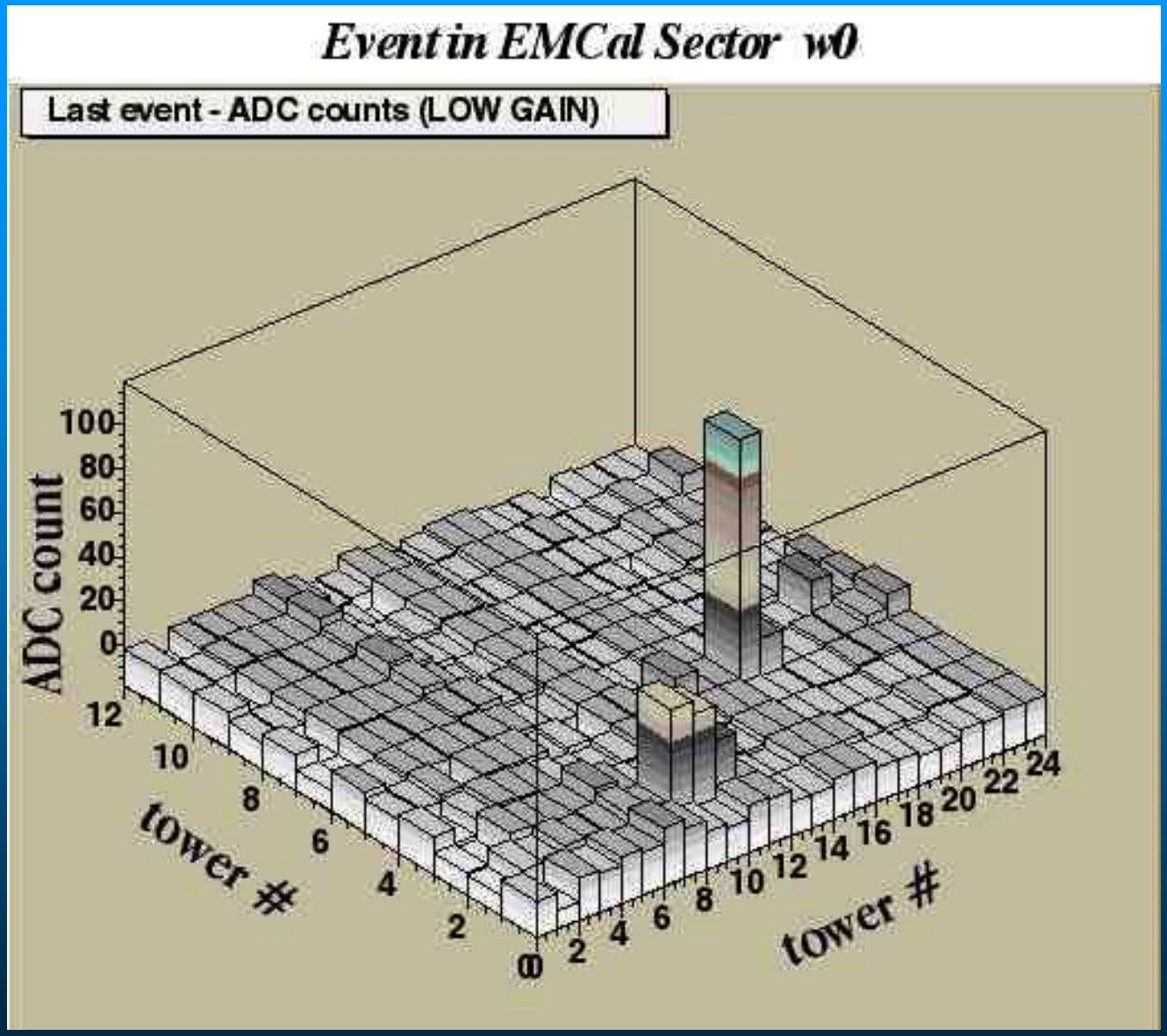
On-line


Master Timing Module (MTM)
Local Level 1
Front End Module (FEM)
Data Collection Modules
LVL1 - J. Lejoie (065)
Granule Timing Module (GTM)
Timing Fiber
Busy
Data Collection Module (DCM)
Accept
Busy
Serial Control ARCNET
Global Level 1
Partition Module (PM)
Sub-Event Buffer (SEB)
Sub-Event Buffer (SEB)
Event Builder
ATM Switch
Assembly &Trigger Processor (ATP)
Assembly &Trigger Processor (ATP)
Assembly &Trigger Processor (ATP)
RHIC Computing Facility
to RCF
Sun
ONCS (Run Control)
M. Purschke (102)

Here's the beam, 4 passes



Signals from detector tests last night



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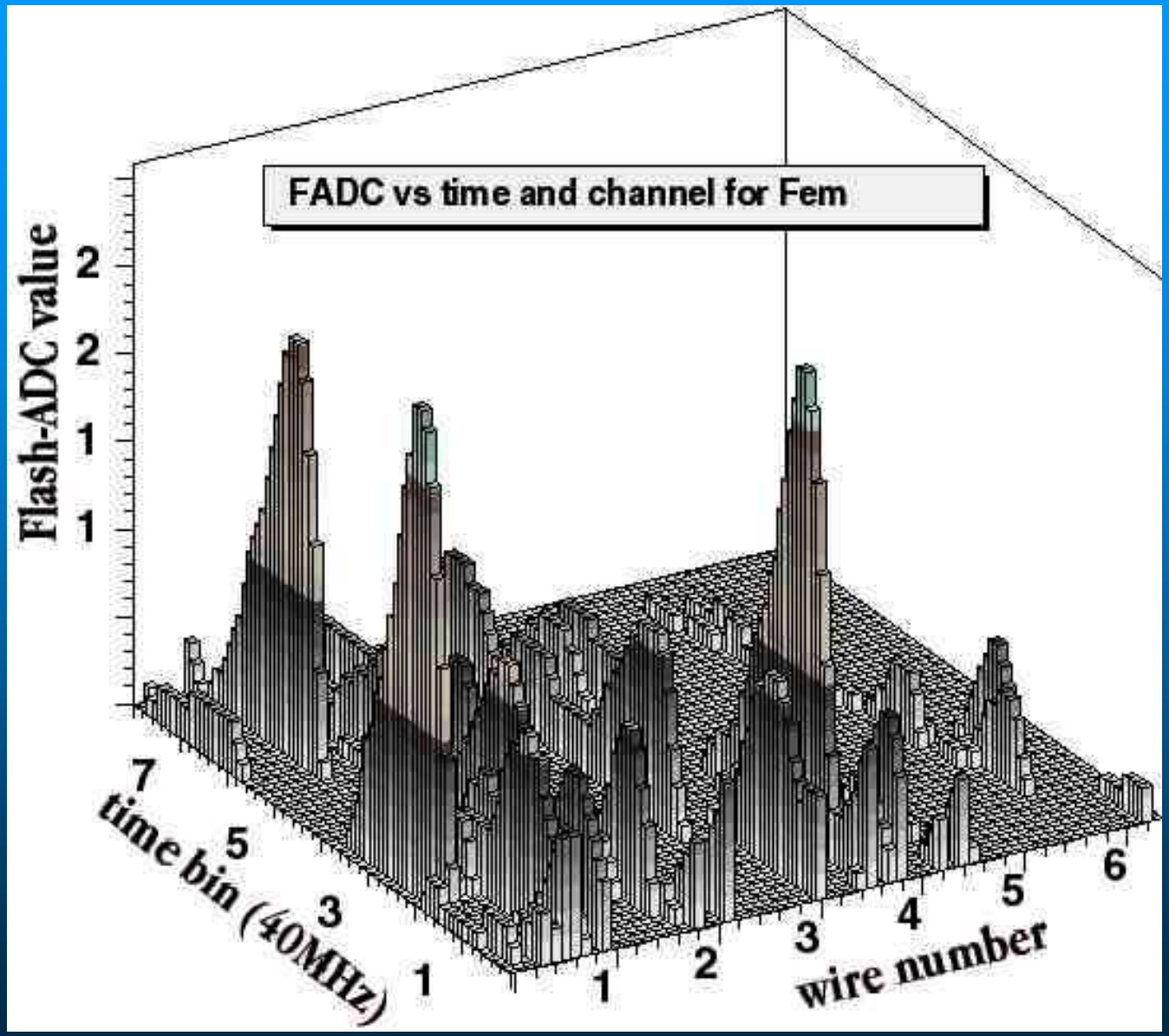
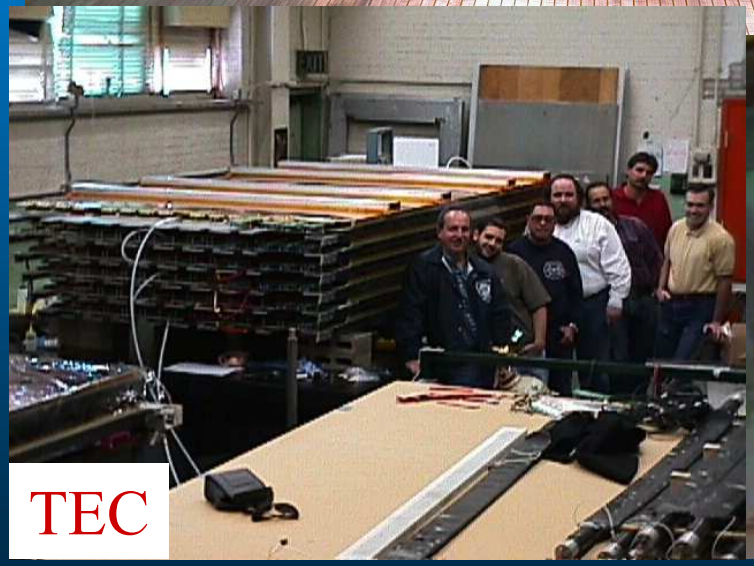


Highlights of things to come

PC3

TOF

TEC



muonID

Highlights of things to come
Driftchamber construction @ SUNYSB