



**MuCool**



# MTA Instrumentation Update

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# Counters



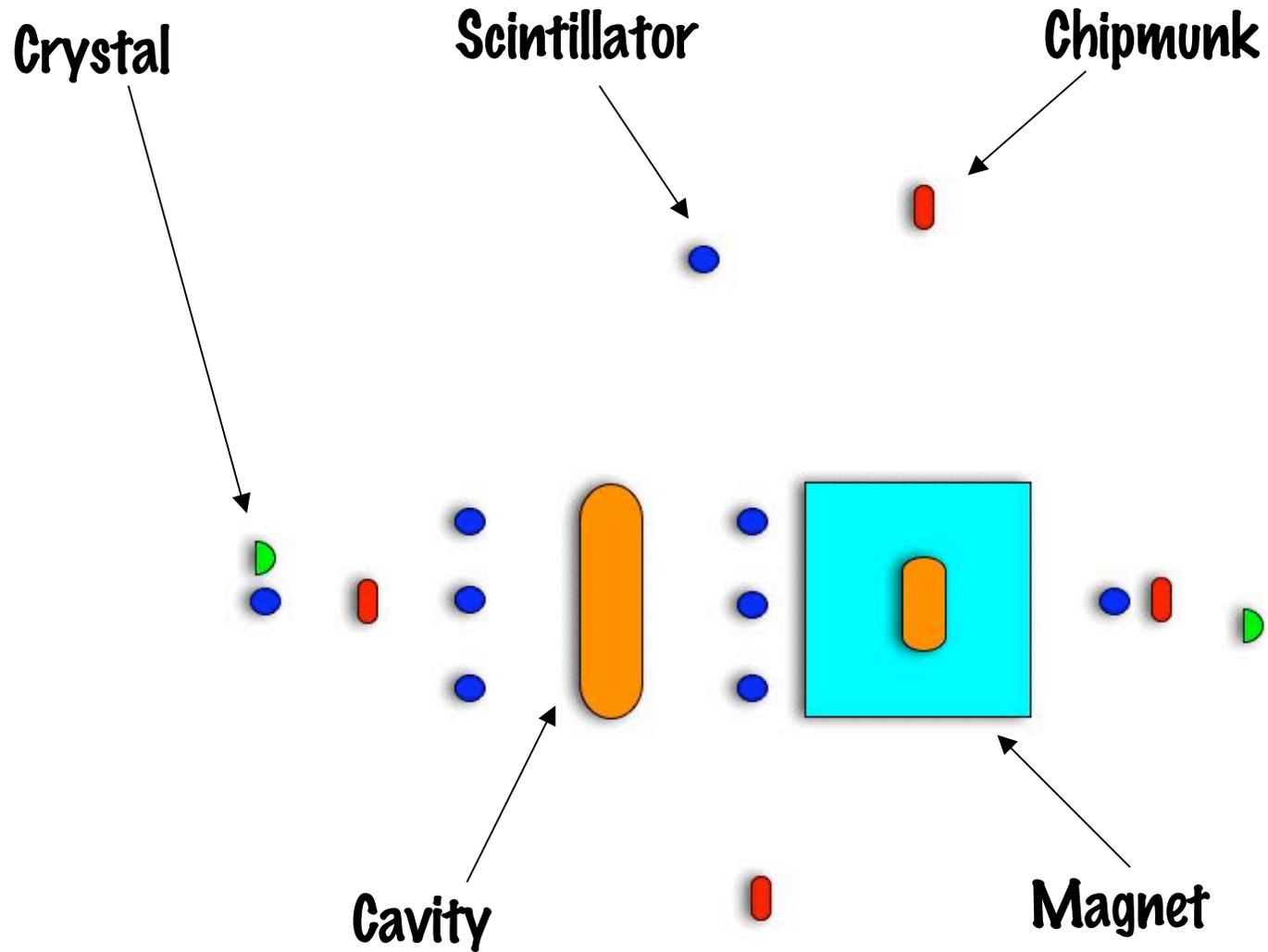
- ✓ Finished rebuilding stands in Lab 6 (W. Luebke) and installed in MTA Hall Oct 27

# Counters

- **PMTs don't work in fringe field**
  - ⇒ Fe pipes for shielding which requires mechanical support
- **Reinforced stands inside 300-Gauss line, rebuilt all**
  - ✓ Force and shielding analysis (Z. Tang) completed Oct 31, engineering review approved and closest stands installed Nov 2
  - ✓ final inspection and approval Nov 7
- **Moved NaI counter upstream for 201 MHz operation**
- ✓ **Physical installation and cabling complete for all 10 channels**



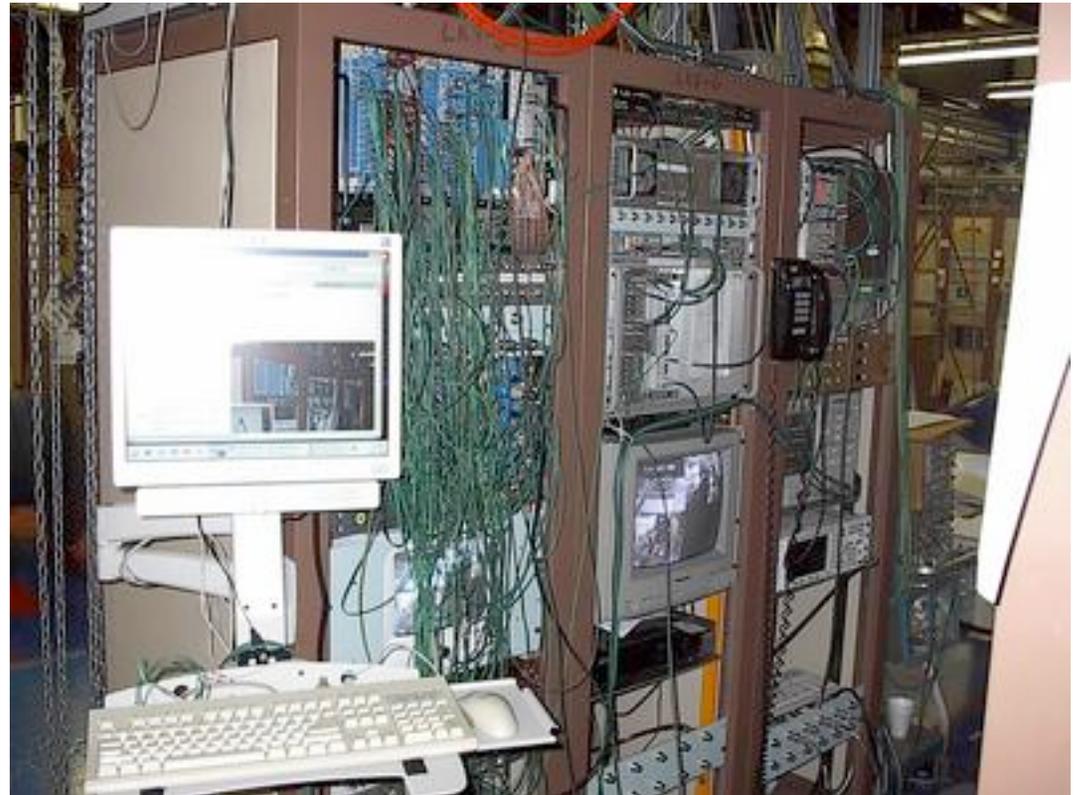
# Detector Locations



# Electronics and DAQ

- **CAMAC**
  - Controller and modules debugged, signals set up (D. Huang)
    - Digitizer for rf envelope from pickup (and reflected power) [30us]
    - ADCs for spectra [100ns/1us, 1/rf pulse]
    - TDCs for timing
    - Scalers for rates [120MHz]

- **GPIO, ACNET hooks**
  - Not yet used
- **Vacuum signals to be added to readout**
- **Software**
  - Cleanup and documentation in progress
- **Calibration**
  - Safety paperwork prepared for use of radioactive sources near magnet



# Rf Controls

- Rf/magnet interlock to LHe level being installed (M. Kucera)
- No automatic reset when system trips
  - Manual tuning required during startup
  - Could build a simple program using existing readout components
    - ⇒ VirtuAl-Moretti
    - Vacuum through ADC
    - Rf envelope through CAMAC
    - Rf frequency/amplitude control through GPIB





# Rf Instrumentation Status



- **Detectors are OK below 1.75T**
  - Looking into shielding problem (D. Huang talk)
- **DAQ is mostly ready**
  - Subset used for Muons Inc run
  - Will stay on starting next week
- **Polaroid technology still works (J. Norem talk)**
  - Good exercise (100m between Hall and key tree)
- **Rf controls update in progress**