

# The MINERvA Operations Report

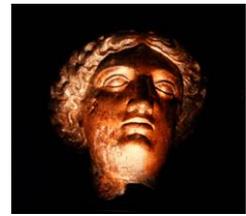
## All Experimenters Meeting

Howard Budd, University of Rochester  
Aug 12, 2013





# DAQ Problems



- Running weekday day shifts
- Last week was devoted to getting the DAQ operational.
  - Errors due to CROC-Es.
  - All FEBs & PMTs are operating properly.
- We were getting many TXRX errors which prevented the DAQ from operating without operator intervention. In addition we could not download a configuration, like HV settings.
  - Clock not stable over the FEB loop
    - CROC channel → FEB → ... → FEB → CROC channel
  - “Command received but not sent”



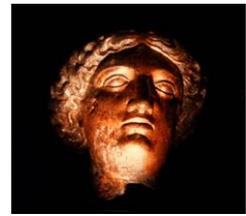
# The DAQ Problems



- Boris Baldin & Cristian Gingu, PPD EED, made several CROC-E modifications which addressed this problem
  - Firmware fix where either the leading or trailing edge of the clock was selected. The new firmware decided which one worked best.
  - Fixes also addressed small number of bit switches in reading out data by soldering on a wire
  - In addition, it addresses a future update which increases the number hits read out during a spill.
- All CROC-E boards were modified, tested, & installed
  - The TXRX errors are gone.
- An operator is not needed to keep DAQ running
  - DAQ has run since Aug 8 without assistance



# DAQ Problems



- We have another problem, but not as big a problem
  - DeserialiatizationLock error
    - Problem with clock completing the chain
  - This problem causes the run to stop and skip to the next sub run. No operator intervention is required to keep the DAQ running. The DAQ is able to recover from this error. This error occurs roughly every 250 gates. This induces some additional dead time, maybe 3%, and runs have different number of gates.
- The DAQ runs well enough to take data
  - Files with varying # of gates can be analyzed
- We are investigating how to fix this error.