

Initial Plan for LAC Cosmics Tests

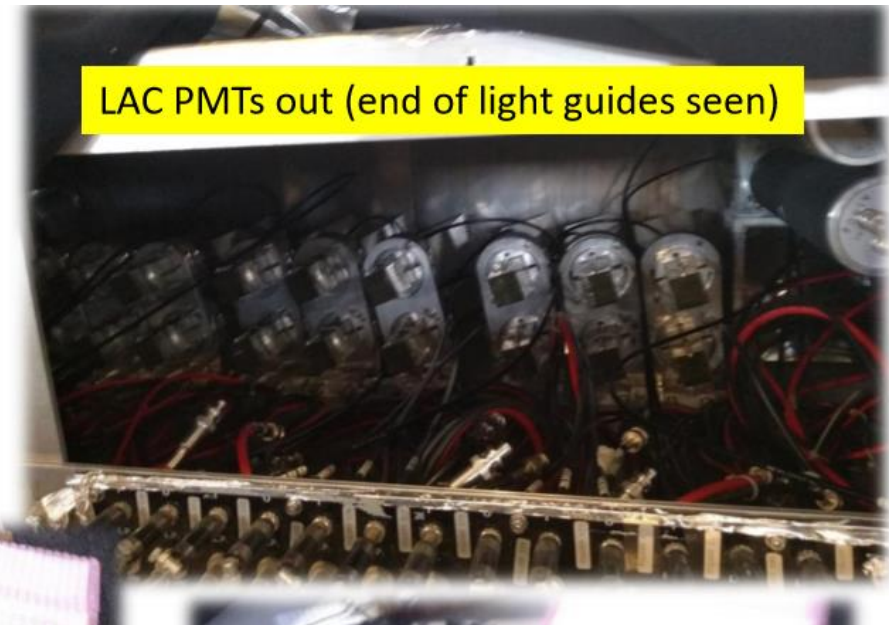
SIMONA MALACE

IN COLL. WITH DIPANGKAR DUTTA

SEP 3 2020

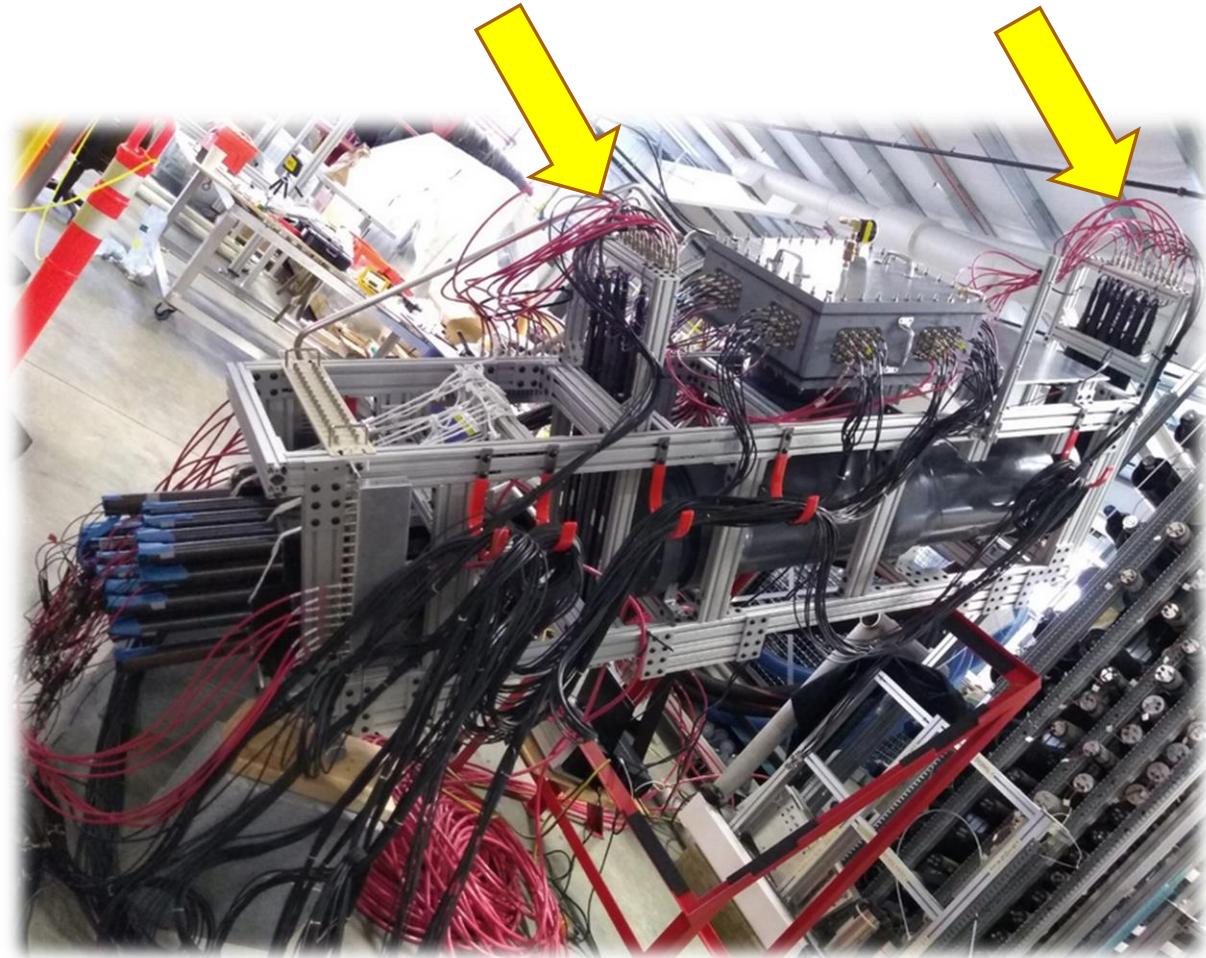
Prior to Cosmics Tests

- All 256 PMTs must come out and will be tested/characterized in a dark box
- The gain monitoring radioactive sources will be removed
- All good PMTs will be reinstalled
- At that point I can set up for tests with cosmics



Tests with Cosmics: Starting small – just to characterize the LAC after refurbishing

- ❑ To start with, I am planning to use 2 planes of finger scintillators for trigger (crossed) and placed on top of the LAC sector that I would test
- ❑ The scin active area would be roughly 11 inch
- ❑ The trigger would be the COIN between the two planes (11 PMTs per plane)
- ❑ 2 FADC250s for both scin planes would be enough; the spare FADC channels (10) can be used to read out the calorimeter
- ❑ I would like a VTP-based trigger (Ben can help me to set it up or maybe David, Steve?)



Tests with Cosmics: Bigger trigger detector – just to characterize the LAC after refurbishing

- ❑ Sometime next year the existing HMS scintillator planes will be available so I will use those: ~50 inch active area
- ❑ 2 FADCs needed for the trigger channels only
- ❑ More FADCs for the the LAC channels (need to count still)

