FRIDAY FLYER – JULY 27, 2012
Something to share: an interesting research project or kudos for a student, teacher or mentor? Contact Kris Whelan.

CENTER SPOTLIGHT: Texas Tech University
http://www.phys.ttu.edu/new_research_files/hep.html

Contact TTU physicist Sung-Won Lee if your center would like to learn more about grid computing and the LHC.

Since 2001, the Texas Tech teachers have been involved in both particle physics activities and observational astronomy. Teachers rescued a number of old telescopes from the basement of the physics building and restored them to operational status. As a result, the Texas Tech center has sponsored several star parties for the Lubbock community. Although the group is small, averaging four to six teachers, the group has accomplished as much as or more than many larger centers. Teachers have built cosmic ray detectors, induction ring launchers, photoelectric effect demonstration equipment and have developed instructional materials for these experiments. In addition to cosmic muon rate measurements, they have measured angular dependence of cosmic rays, muon's magnetic moment, and have attempted to search for tachyons.

This year, teachers held a videoconference with two former mentors who were at CERN. Alan Sill and Nural Akchurin took the teachers on a video tour of the DREAM (RD52) Test Beam Facility. Teachers observed a real-time CMS control room shift. Christopher Cowden, a former undergrad student, demonstrated what is involved in working a shift. Teachers learned about the many things that needed to be checked and what certain graphed results meant. Also this summer, teachers were treated to excellent talks by TTU physicists such as “Latest News from CERN, Higgs and the Next Step in Particle Physics" and "Monopole Search in CMS." With the upgrades needed to become a Tier 3 computing center for the CMS experiment, Texas Tech is ranked in the Top 500 most powerful computer systems in the world. Under the leadership of physicist Sung-Won Lee, the Texas Tech QuarkNet Center will continue to provide unique opportunities for high school teachers.

NEWS FROM QUARKNET CENTRAL
Contact Info!!! Now is the time to notify your mentor if your contact information has changed. Why? The High School Teacher Program at CERN, Boot Camp at Fermilab and other opportunities for which teachers can apply are all sent through QuarkNet’s listserv.

If you have a detector, make sure your mentor has your DAQ # used to track our inventory (found on the back of the DAQ board).

Isn't your detector working? Are you no longer able to use the detector per your user agreement? Contact the Help Desk. (Link on: http://www.i2u2.org/elab/cosmic/teacher/community.jsp) We can help troubleshoot the problem or find a new home for the detector.

PHYSICS EXPERIMENT ROUNDUP:
AMS Experiment Marks One Year in Space
http://www.interactions.org/cms/?pid=1032066
Although the focus of physicists has been on the LHC, CERN is involved in many other experiments. The Alpha Magnetic Spectrometer, delivered to the ISS on the last mission of the Space Shuttle program, has collected over 17 billion cosmic ray events since starting up last year. NASA receives the data, then sends it to CERN for analysis by the AMS Payload Operations Control Centre.

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