

Hampton QuarkNet Center 2012 Activity Report

9/7/12

The Hampton QuarkNet Center 2012 has 10 active high school teachers from across Virginia. There is one lead teacher but 3 others actively share in leadership. Vassilis Vassilikopoulos at Hampton University is the mentor; however, the group has active participation from physicists at the College of William and Mary and George Mason University.



Masterclass 2012 at George Mason University: teachers Janet Kahn (left), Deborah Roudebush (foreground right) and Joe Fehr (background right) assist students in analysis of ATLAS data.

Masterclass 2012

The Hampton center held three masterclasses in March and April 2012. One was held at George Mason University in northern Virginia and concentrated on ATLAS data. GMU physicist Phil Rubin acted as the mentor and lead teacher Deborah Roudebush was the main organizer. Another was focused on CMS data at the College of William and Mary, with W&M physicist Josh Erlich mentoring and teacher Mike Fetsko organizing. The third was at Hampton University in April: mentor Vassilis Vassilikopolis ran this for students from schools in the Hampton area.

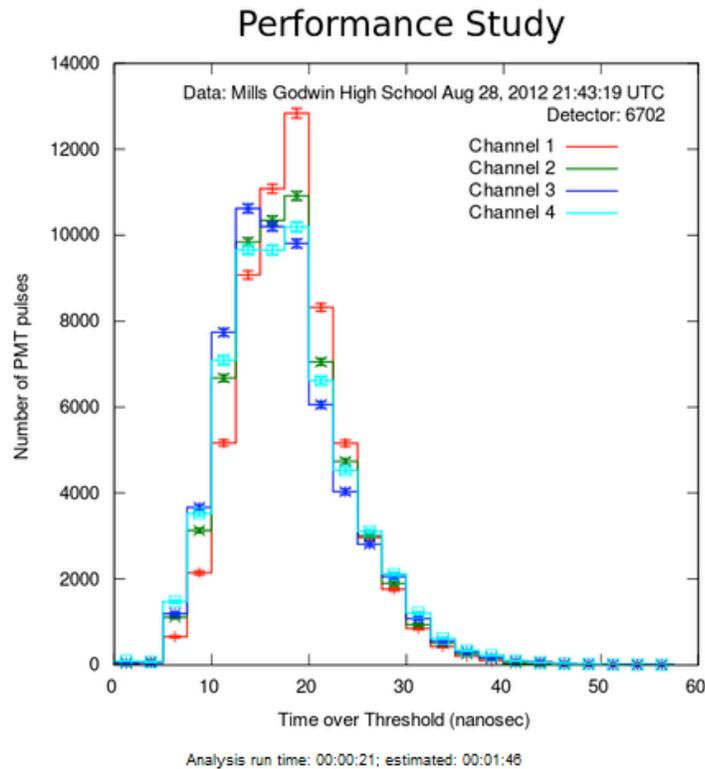
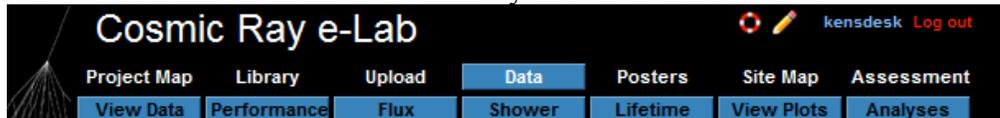
Workshops

The Hampton center generally has a 2-3 day summer workshop at HU and 2 or 3 Saturday workshops in other parts of Virginia. This year, they met at Mills Godwin High School near Richmond on November 19, 2011, and at Oakton High School in Northern

Virginia on March 3, 2012. In the summer, members of the Hampton center met August 6-8, 2012 at Hampton University and Thomas Jefferson National Accelerator Laboratory. The summer 2012 workshop included a tour of the CMS e-Lab, talks by Vassilis Vassilikopoulos and Josh Erlich, and explorations of ways Hampton center teachers have implemented QuarkNet content and methods in the classroom. The group toured the Hampton University Proton Therapy Center under the guidance of Therapy Center technician Chuck Long, who had been part of the HU ATLAS effort for many years and is thus well-known to the QuarkNet teachers.

Cosmic Ray Detectors

The Hampton Center currently has 5 detectors. Mike Fetsko and his students operate a detector at Mills Godwin High School in central Virginia. There are three operating detectors in northern Virginia: Janet Kahn has taken the detector formerly at Norfolk Christian School and operates it at Marshall High School, Tom Pratuch operates another at McLean High School, and Deborah Roudebush uses another at Oakton High School. The final detector is at Norfolk Academy with Charles Merriam.



Recent performance study from cosmic ray detector at Mills Godwin High School.