

Friday Flyer – January 18, 2013

Center Spotlight: Hampton & George Mason Universities/College of William & Mary (Virginia Center)

For ideas on how to maintain a geographically diverse center, contact lead teacher Deborah Roudebush.

The Hampton University QuarkNet Center began in 2000. Now, the center incorporates two other research institutions. Teachers are spread in an arc from southeast northern Virginia. Teachers reached out to Josh Erlich at the College of William and Mary and Phil Rubin of George Mason University for assistance. Both have joined Vassilis Vassilikopoulos of Hampton as mentors. The center has 10 active teachers. Four teachers actively share leadership. They split up workshop topics creating a strong cosmic ray detector program and offering three different masterclass institutes. One was held at George Mason University on ATLAS data. The CMS masterclass was held at the College of William and Mary. The third was at Hampton University. This Virginia center has been active and reliant on the initiative of teachers who devised a system for meeting three times per year in three locations with two Saturday meetings during the school year and a three-day workshop in the summer. Most of the teachers make at least two of the three meetings, if not all. There is a lot of driving, a lot of work together and great lunches at adopted haunts.

News from QuarkNet Central: Spend a week at Fermilab this summer! Ask your mentor about attending Boot Camp. Explore CMS proton-proton data, take facility tours and attend a lecture series. Work in groups to analyze the output of several triggers and present your findings in a closeout poster session. Two teachers per center may participate with preference given to centers that did not participate in 2012. Participants receive a stipend and support for travel, meals and lodging. When: July 22-26 (21 and 27 are travel days.)

Physics Experiment Roundup: The first LHC protons run ends with new milestone: <http://www.interactions.org/cms/?pid=1032496> During . . . ”the remarkable first three-year run of the world’s most powerful particle accelerator, . . . 6 million billion proton-proton collisions were generated by the LHC, and the ATLAS and CMS experiments have each recorded around 5 billion collisions of interest over the last three years. Of these, only around 400 produced results compatible with the Higgs-like particle whose discovery was announced in July.” (from *Interactions.org*, Dec. 17, 2012)

Just for Fun: What if reality were really just 'Sim Universe'?

<http://www.insidescience.org/content/what-if-reality-was-really-just-sim-universe/871>

“What if everything—all of us, the world, the universe—was not real? What if everything we are, know and do was really just someone's computer simulation?” (from *insidescience.org*, Dec. 14, 2012) Read how three physicists are planning to respond to this question.

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