Florida Tech Dazzles with Cosmic Ray Collection

Florida Tech, one of 40 institutions contributing to the national QuarkNet physics outreach program, collected more data than any QuarkNet group so far—two times more data than the center collecting the second largest sample. Eight high school physics teachers and four high school students participated in the one-week summer workshop, which was led by particle physicist Marcus Hohlmann, physics and space sciences. Hohlmann received a $14,800 National Science Foundation grant to join in the hands-on physics program. That brings NSF grants to the Florida Tech QuarkNet program to a total of $50,000 so far.

To gather the data, that is, to detect subatomic particles, the team set up detectors—built by teachers at previous Florida Tech workshops—in the F.W. Olin Physical Sciences Center. The detectors produce brief light flashes of 20 to 30 nanoseconds duration every time a subatomic particle passes through. In this case, the particles of interest were muons. These are more massive relatives of the familiar electron.

The team, which collected data for a total of six weeks, uploaded their 45 million muon events to a data server managed by the University of Chicago and Fermilab, near Chicago, which hosts the program’s headquarters. The server allows interactive analysis of the data via a Web portal.

QuarkNet was initiated to inspire young people to pursue fundamental physics. The program gives students and teachers opportunities for hands-on experience with modern experimental research techniques in particle physics.

Two of the QuarkNet summer students enrolled as freshmen this fall. They are physics major Nick Leiotts and business major Parisa Rassoul, Hamid Rassoul’s daughter. Jeff Pesula, who teaches physics at Sebastian River High School, is enrolled in a Florida Tech physics graduate program.

For more information, visit www.fit.edu/pss-quarknet.
Faculty and Staff News

College of Science Dean Gordon L. Nelson recently presented two papers in Europe. At the 10th European Conference on Fire Retardant Polymers, held in Berlin, his talk was “Polystyrene/silica and PETG/PMMA/silica nanocomposites.” At the 8th Polymers for Advanced Technologies International Symposium, held in Budapest, he presented “Ferrocene containing copolymers with improved electrostatic dissipation properties for advanced applications.”

In biological sciences, Mark Bush published “Of orogeny, phylogeny, precipitation and parrots” in the Journal of Biogeography. He also published “The biogeography of neotropical crotalid snakes” in the Journal of Molecular Ecology ...

Robert van Woesik published “Assessing the effects of non-point source pollution on American Samoa’s coral reef communities” in Environmental Monitoring and Assessment.

Mike Barker and Bill Graves, College of Aeronautics, wrote the chapter, “Airport Planning and Design,” published in McGraw-Hills’ Handbook of Transportation Engineering.

In the School of Psychology, Frank Webbe earned Fellow status in the American Psychological Association. In his Division of Exercise and Sport Psychology, only about two to three percent of members have Fellow status. He also made two presentations at the 113th annual meeting of the American Psychological Association in Washington, D.C. They were the Division 47 Presidential Address, “What neuropsychology offers to sport psychology and sport psychologists,” and “Psychological factors predict disordered eating patterns in female distance runners.” … Juanita Baker presented “Therapeutic techniques encouraging full disclosure for children and teens who have been sexually abused” at a training workshop for Children’s Medical Services in Tampa and “Foster parents helping children in matters regarding sexual abuse,” a foster care workshop held in Cocoa Beach.

Lisa Steelman, with Teri Domagalski, College of Business, published “The impact of work events and disposition on the experience and expression of employee anger” in Organizational Analysis. Also, Steelman, with Kelly Rutkowski, Ph.D. ’03, published “Testing a path model for antecedents of accountability” in the Journal of Managerial Development.

Correct!

Rodd Newcombe, Evans Library, correctly spells a word at the Florida Public Relations Association’s Community Leaders for Literacy Spelling Bee. Held in the Gleason Performing Arts Center, the bee earned over $1,500 for the Literacy Program of the Brevard County Libraries. Also on the Florida Tech team were Scott Blackwell (C) and University College Dean Clifford Bragdon.
Another Florida Tech-NASA Link

A little-known connection between the university and NASA is the back-up communication link that F.I.T. Aviation provides during space shuttle launches. One of F.I.T. Aviation’s Piper Warrior aircraft is equipped with special communication equipment provided by NASA. In the event NASA’s primary communication link with the shuttle fails, the F.I.T. Aviation plane is the backup communication link.

“Our aircraft circles west of Kennedy Space Center over the Indian River at 4,500 feet. It is in position two hours before launch,” said Frank Gallagher, director, F.I.T. Aviation LLC.

Mission to New Orleans

F.I.T. Aviation granted permission to senior Mark Hinczynski, an aviation management with flight major, to take freshman Billy LaCorte to survey damage of LaCorte’s home in Jefferson Parish, following Hurricane Katrina. The pair found the house, in the New Orleans area of Metairie, still bearing a five-foot water level mark and badly damaged from flood and mold. Hinczynski is pictured here on the return flight. He holds a commercial pilot certificate and is pursuing a Certified Flight Instructor certificate.

Florida Tech Offers Katrina Refuge

Three graduate and six undergraduate students, from three different New Orleans-area universities, have enrolled for the fall semester at Florida Tech. The students are not being charged tuition.

The undergraduates comprise four freshmen and two seniors. Four of the students are from the University of New Orleans (UNO), four from Tulane University, and one from Xavier University. In addition to free tuition, several of the students are living with faculty and staff members at the university.

“Enrolling these students has been a team effort of our admission offices, registration center and academic departments,” said Cookie Young, registrar.

Each student has a story, and each a distinct reason for choosing to call Florida Tech home this fall. One UNO student, Ryan Costanzo, has a family tie to Florida Tech, as his identical twin brother Sean is a student here.

Top Programmers Compete on Campus

The Department of Computer Sciences will host the Association for Computing Machinery (ACM) International Collegiate Programming regional competition, again this year, on Oct. 15. About 70 teams of three students each, from five states, will compete for five hours in solving programming problems. The best team will represent the region at the world finals in April 2006.

Florida Tech will enter four teams. For more information, contact adviser and regional programming contest coordinator, Ryan Stansifer at ext. 7156.

Plant Sale on the Quad

The Florida Tech Botanical Garden Fest Plant Sale offers plant lovers a chance to buy greenery and garden décor as well as support the Botanical Garden on Oct. 15, 9 a.m. to 4 p.m. The sale, offering ornamental shrubs, trees, bromeliads, orchids and other flowering plants, statuary, pottery and more from a variety of independent vendors, takes place in the academic quad behind the Miller Building. Admission is free.

Proceeds will benefit the continuing restoration of the Botanical Garden. For more information, contact Bobbie Taylor at ext. 6155.
Still Among Nation’s Elite

For the 16th consecutive year, *U.S. News and World Report* ranked Florida Tech among the nation’s best national doctoral universities. The listing again places the university among the 180 best.

The university is classified by the Carnegie Foundation as a Doctoral Research Intensive university, a classification that separates it from institutions that only offer degrees at the bachelor’s or master’s level.

Notable in the *U.S. News* survey was Florida Tech’s climb to 56 percent of classes with under 20 students, up from 46 percent in the 2004 guide. Conversely, the number of classes with more than 50 students continued to decrease, from eight percent in 2004 to three percent today.

Florida Tech’s freshman classes continue to be academically strong, with 30 percent of incoming freshmen in the top 10 percent of their high school graduating class.

In other news, *The Princeton Review* named Florida Tech a Best Southeastern College for 2006, for the second consecutive year. The designation was based strictly on interviews with students from more than 600 colleges around the United States.

From the President’s Desk

Anthony James Catanese

Over the past few weeks the latest college rankings have arrived from a variety of sources, and all continue to paint a bright portrait of our university. *U.S. News and World Report* still ranks us in its third tier of national doctoral universities, and *The Princeton Review* has again named us as one of the top universities in the Southeast. Although *U.S. News and World Report* uses a variety of criteria to create its sometimes controversial rankings, *The Princeton Review* bases its ranking primarily on interviews with undergraduate students.

While both of these new rankings, along with previous notations in *Barron’s Best Buys in Higher Education* and in the *Fiske Guide to Colleges*, do much to boost our reputation and collective ego, our goal in the coming year should be to build on and improve these rankings.

We are improving in many of the key elements used in the *U.S. News* rankings. Our percentage of classes with fewer than 20 students is increasing, while the number of classes with more than 50 students has experienced a sharp decline. Our student-to-faculty ratio stands at 9:1, and these students are trending upward both in S.A.T. scores and in high school GPA. Once they graduate, these students are giving back to their alma mater in increasing numbers.

But there is still more to do. We will spend more time telling our story to opinion leaders in higher education. We will make it our mission to improve our retention efforts and graduation rates. And, we will continue to focus on fundraising. Doing these things will not only benefit our rankings, but make for a stronger, better university.

Come to President’s Picnic

Be ready to enjoy fun, fellowship and food from Woody’s BBQ at the second annual President’s Picnic on Saturday, Oct. 22, noon to 4 p.m. President Anthony J. Catanese invites all faculty, staff and their families to the event at the intramural soccer field, located behind the Psychology Building. Last year it was a day to relax and regroup in between hurricanes. Let’s hope that this year it’s just a day to relax.