AIP|Matters

Monday, November 17, 2008

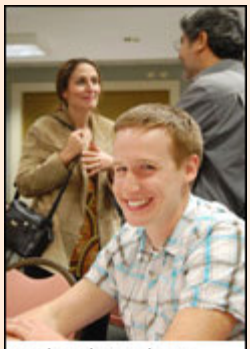
Director's Matters

Future faces of physics at the Sigma Pi Sigma Congress

Searching for life in space. Racing to find "missing mass" within the infinitesimal space of a proton using the two largest accelerators in the world. Hunting for the "missing mass" in the universe using the same two accelerators and a collection of the world's orbiting or terrestrial telescopes. Educating the public and our elected officials on the complexities of evolution, cosmology, nuclear technology proliferation, and climate change. Promoting science as a career for an increasingly diverse population. Only at the 2008 Congress of Sigma Pi Sigma could you find such a mix of fascinating subjects—all covered by recognized experts, in one 50-hour marathon meeting.

More than 600 physics enthusiasts (70% were undergraduate physics majors), from 170 campuses and institutions throughout the US, attended the congress, which was held November 6–8 at Fermilab in Batavia, IL. Many schools sent busloads to the congress. Coe College of Cedar Rapids, IA, even decided to close down its physics department because 42 of its students and faculty were headed to Fermilab.

Congress participants listen attentively to Fred Jerome and Rodger Taylor, authors of *Einstein on Race and Racism*.



Michael Gaither, congress planning committee member

Like the Olympics, this event is held every four years. It is organized by Sigma Pi Sigma, the physics honor society, and the Society of Physics Students (SPS), both administered by AIP's Education Division. A planning committee of students, alumni, faculty, and staff met regularly via teleconference during the past two years to prepare for this event—by far the most successful congress yet. George Miner, a past president of Sigma Pi Sigma, remarked, "I've been to five of these congresses, and they just keep getting better and better!" In Fermilab's Wilson Hall Atrium, more than 100 student poster presentations covered topics as diverse as particle-physics detectors and the rotation of maple-seed helicopters as they fall. Over 30 works of contributed art were displayed, with titles such as "The Bubble Chamber Reliquary" and "Jovian Marbles."

More than 50 students were assigned as reporters; they provided interviews, photos, and prose regarding the events and the people. These reports will be available through the congress website; the link also gives access to our Flickr site, where the first photos posted in this shared forum can be viewed.

The AIP Governing Board elected

High energy flowed through the exhibit hall, where 25 graduate schools and institutions showcased their programs.

to hold its fall 2008 meeting at the same venue just before the start of the congress so that the board members who wanted to could participate. This proved to be mutually beneficial to the student and board attendees. All of the board participants were captivated by the energy and enthusiasm of the students, and our student attendees benefited by having experienced facilitators at the discussion sessions that followed each plenary presentation. Board chair Lou Lanzerotti's presentation at the workshop, "From Researcher to Representative," was very well received.

Fermilab pulled out all the stops to show the attendees the wide range of science, technology, art, and architecture evident at this unique national laboratory. Thirty-four Fermilab scientists met with the students to discuss their career paths; many more served as presenters at the dozens of laboratories and research facilities on the 28 available tours. The staff and management of Fermilab were exposed to an exemplary and diverse cross section of the present generation of physics students—clearly a win-win combination for all who participated.

What will become of all the energy and enthusiasm exhibited at this year's congress? Attendees generated a long list of recommendations from the break-out sessions, which will be sifted and prioritized for follow-up programs at local and regional SPS (zone) meetings so that the "future faces of physics" may become model citizen scientists as they advance their careers.

Sincerely,

Fred

Students pose with speaker Leon Lederman, Nobel Laureate and past director of Fermilab.

Publishing Matters

JRSE's launch generates worldwide interest

Following a soft launch of its website this past August, the *Journal of Renewable and Sustainable Energy* (*JRSE*) had its official launch on November 6—publishing its first accepted manuscripts online. Melville's editorial and marketing departments collaborated with College Park's Media & Government Relations (MGR) division to issue a press release ("Tiny Solar Cells Built to Power Microscopic Machines") that highlighted captivating news from the journal's first featured article. The press release, which was distributed to reporters worldwide, garnered a great deal of media attention for *JRSE* and generated stories in *Wired* and *Scientific American*, and via the wire service Reuters, which syndicated it to newspapers, websites, radio stations, and television outlets. Just a few days after the press release was made public, MGR noted that the news appeared on websites worldwide, including in Canada, England, Bulgaria, Australia, Iran, India, Pakistan, Scotland, Croatia, and South Africa. The release was also translated into Mandarin Chinese and distributed in China via EurekAlert. Some 317 Chinese-language websites picked it up, including the daily *Science Times*.

JRSE has also taken center stage at a number of AIP-attended scientific and library exhibits and events, with information featured at the 2008 AIP Industrial Physics Forum and on display at the AVS

55th International Symposium, a New York Academy of Sciences seminar on Energy and the Environment, and the XXVIII Annual Charleston Conference. *JRSE* will continue to be a featured publication throughout the year, with distribution of literature and promotional materials planned for upcoming exhibits at meetings of the Materials Research Society, American Library Association, Association of College & Research Libraries, Special Libraries Association, and numerous other conferences and events.

To cap off the week, Ira Flatow of National Public Radio interviewed *JRSE* co-editor P. Craig Taylor (at right) for the show *Science Friday*. AIP is delighted to see such a positive media response for *JRSE* and hopes that the journal will grow along with the diverse and rapidly expanding renewable and sustainable energy research community. The journal is well on its way to success.

Physics Resource Center Matters

Statistical Research Center announces new data resources on minorities

The AIP Statistical Research Center has launched a new feature on its website specifically for reports and data resources on underrepresented minorities. Now available through the site are:

- A 2008 report on the African American presence in physics and the geosciences;
- Preliminary findings from a similar report in progress on Hispanic Americans;
- Lists of universities that, over the last 10 years, awarded the most physics bachelor's degrees and PhDs to Hispanic Americans and African Americans;
- All SRC reports since 1994 on attendees' evaluations of the National Conference of Black Physics Students; and
- Reports on student participants at recent annual meetings of the National Society of Black Physicists and the National Society of Hispanic Physicists.

Climb your way to green

And we're not just talking about taking the stairs every time you visit APS (green floor)! Taking the stairs instead of using the elevator saves energy. Depending on type, capacity, and usage, an elevator's yearly energy consumption can equal the energy required to power seven homes over the same time period. You will also burn calories and can avoid awkward elevator silences. It's a win-win proposition.

We invite your feedback to this newsletter via e-mail to aipmatters@aip.org.

For past issues of this newsletter, visit the AIP Matters archives.