AIP Matters

Tuesday, February 16, 2010

Director's Matters

Extending physics' reach through time and space

This past weekend an intrepid group of physicists and physics teachers braved the snow-covered city of Washington, DC, for the start of the 2010 APS/AAPT Joint Meeting, which extends through Wednesday, February 17. During the awards ceremony on Sunday evening, APS and AIP honored two remarkable physicists: Stephen Brush, an eminent historian of science from the University of Maryland, and Gustav-Adolf Voss, a retired physicist from the DESY research center in Hamburg, Germany. Prior to the awards ceremony, I had the honor of chairing a session at which both of these distinguished physicists presented lectures on their work and current interests.

Stephen Brush, recipient of the 2009 Abraham Pais Prize for History of Physics

APS awarded Stephen Brush with the Abraham Pais Prize for History of Physics. Brush started his professional career as a plasma physicist at the Lawrence Radiation Laboratory in Berkeley, CA, in the late 1950s and made important contributions to the description of so-called solid-state plasmas. Subsequently, Brush's interest moved toward the history of science, and in 1968 he was appointed the first historian of science at the University of Maryland.

As a prolific author, teacher, and scholar, Brush was instrumental in transforming common perceptions about how science really develops. Scientific progress does not proceed along a smooth path from germination of an idea to a grand new discovery or invention. An accurate history of science illustrates how the scientific process is filled with pitfalls that contribute to eventual forward progress and illuminates the human nature of the scientist. We learn more about the science and scientists from such a portrayal, which does much more than dwell on the glory and fame of an important advancement. Brush has a distinguished written record of this form of scholarship. His lecture on Sunday described the two most revolutionary developments in science in the 20th century: Einstein's theory of relativity and quantum mechanics. Both theories required decades of analysis and experiments before general acceptance by the physics community.

AIP presented Gustav-Adolf Voss with the Tate Medal for International Leadership in Physics in recognition of his outstanding success in promoting physics around the world

Gustav-Adolf Voss, recipient of the 2009 Tate Medal for International Leadership in Physics

during a long and distinguished career. Voss is well known by everyone in the accelerator physics community for designing and building a series of particle accelerators in the US and Germany—machines that tested our understanding of the quantum nature of the subatomic world. Voss devoted considerable effort to finding positions for scientists from Eastern Europe and the former Soviet Union, particularly after the fall of the Berlin Wall, when the careers of many scientists in those regions were in jeopardy.

Following his retirement from DESY in 1995, Voss's volunteer efforts were critical to the launch of the SESAME project, an accelerator-based x-ray user facility being built in Jordan. The project is a testament to Voss's diplomatic and project management skills; nine Middle Eastern countries are collaborating on the project, despite the fact that several of the countries have no official diplomatic recognition of each other's existence (for example, Iran and Israel).

Voss continues to advocate for strong international collaboration on major physics projects. During his lecture, Voss urged the physics community to stand behind the development of large central plants based on fusion power, despite the long gestation period. How timely for Washington-area residents, many of whom suffered from a lack of power this past week due to storm-damaged distribution lines. Freezing in the dark brings a certain clarity to our outstanding energy problems.

Sincerely,

PUBLISHING MATTERS

C^3 to bloom in early March

The evolution of the C^3 platform is approaching an exciting milestone. All of the core components are in place, new features and services have been built and tested, and the Scitation team is making final preparations to unveil AIP's premier collection of research journals on C^3 in early March, with the platform's official debut.

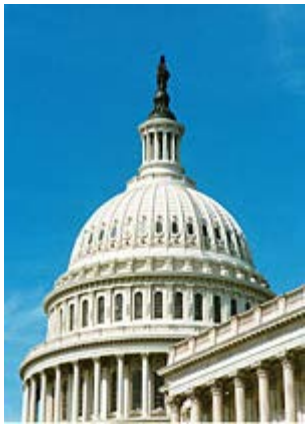
Notable features you will see on AIP's new Scitation platform include enhanced rendering functionality, such as the new full-text HTML article—which takes the

concept of an article that can be “strategically read” to a new level of utility and interactivity. Special features of the new full-text HTML include zoom-in figures and tables, object browsing, in-line reference links, and a dynamic search widget. C^3 also features “related article” suggestions, a “most recent articles viewed” feature, and more article imagery displayed throughout publication pages.

The new Mark Logic search engine for C^3 delivers faceted search results based on authors, keywords, section headings, and publication year. Smart tables of contents form the new standard on C^3—helping time-pressed researchers to quickly scan, navigate, and access content of interest. Visualization tools, like the GeoMapper, show where research articles are being produced in the context of the global community. Improved accessibility, user-friendly URLs, and mobile views make it easy for users to interact with C^3. The stage is set to begin migrating Scitation partners to the new platform. Stay tuned for more exciting C^3 news in the coming months!

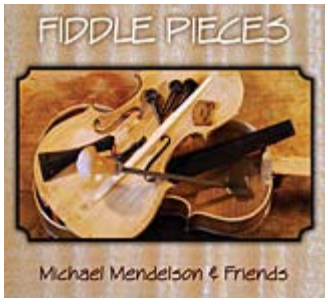
PRC MATTERS

Increasing fellowship



For the second year in a row, the AIP Congressional Science Fellowship Program has gotten an extraordinary number of applications. This year, the program received 49 applications, second only to last year's record-breaking number of 57 applications. Possible reasons for this increased interest could be heightened political awareness from last year's presidential election and the downturn in the economy leading to fewer employment opportunities. Whatever the reason, AIP welcomes and appreciates this important feedback from our community. Thanks to increased support from two of our Member Societies, AVS and ASA, we are delighted to be able to sponsor two congressional fellows for the 2010–11 term. The fellowships touch many areas of public policy, advancing AIP’s science advocacy goals.

The Year of Physics lives on through musical tribute



To commemorate the World Year of Physics in 2005, Stephen Benka, editor-in-chief of *Physics Today* magazine, commissioned scientist and musician Michael Mendelson to write two tunes. They are now available on the recently released music CD *Fiddle Pieces* by Mendelson and friends (you can hear a snippet of each tune at the CD link).

“El Baile de los Entrelazados” was a tune written as a challenge to budding physicist-lyricists, and the music was published in the July 2005 issue (page 61) of *Physics Today*. The winning entry appeared as “The Entanglement Tango” in the December 2005 issue. Also in that issue,

the second piece, “Yopper’s Stride,” was published as “The *Physics Today* Rag” with lyrics by Benka; the term “Yopper” refers to the Year of Physics—YOP—task force.

You can read more here (see page 9) and here.

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.