



Director's Matters

By H. Frederick Dylla, Executive Director & CEO

History on display

In my career as student, teacher, and practitioner of science, I have always valued the history behind the development of a theory or invention: The historical context adds richness and human drama to the quest for scientific knowledge. For that reason, it is my pleasure to highlight several new resources provided by [AIP's Center for History of Physics](#).

The History Center has been developing web resources for more than 15 years, which have proven to be quite popular based on the download statistics. The online exhibit [Bright Idea: The First Lasers](#) (see the [February 22 issue](#) of *AIP Matters*) is the latest in a successful [series of exhibits](#) that span key developments (from the discovery of the electron and superconductivity to the invention of the transistor) or center on \hat{A} pioneering personalities in physics (such as Albert Einstein, Marie Curie, and Ernest Lawrence). These online exhibits draw on the photographs, oral histories, documents, publications, and other sources in the AIP Niels Bohr Library and Archives and many other collections. The five most popular exhibits (out of 14 total) received more than 1,700,000 visits during 2009.

I first took advantage of these marvelous tools when I was working at Jefferson Lab in 1997, preparing a lecture on J. J. Thomson's discovery of the electron. In honor of the centenary of Thomson's 1897 discovery, the History Center had prepared one of its first online exhibits, which brought a completeness and coherence to Thomson's life and work.

Thirteen years later in 2010, the exhibit still trumps Wikipedia's offerings. As I perused the site and studied the linked references, I became interested in some of the scientific tools that led to his electron discovery, such as the intricate hand-blown glass tubes containing electrodes for exciting discharges in gases, the induction coils for inducing high voltages across the tubes, the early vacuum pumps for evacuating air from the tubes, and the spectrosopes to analyze the composition of the excited gases. By good fortune, excellent examples of these early instruments were maintained as part of the Garland Collection of classical physical instruments at Vanderbilt University. With the help of [David Ernst](#) from Vanderbilt, I arranged for the 19th century apparatus related



to Thomson's discovery to be borrowed from Vanderbilt for display at Jefferson Lab. This collection has recently been transferred to the American Center for Physics, where it is now on display (photo above) in the lobby of the Niels Bohr Library and Archives.

PRC MATTERS

Statistical Research Center posts two new publications



Each year, many undergraduate physics programs are required to undergo a departmental review and, in some cases, are asked to justify their continued degree-granting status. The AIP Statistical Research Center (SRC) recently posted a new publication intended to assist those departments: [*focus on Size of Undergraduate Physics Programs*](#). This *focus on* presents the latest numbers on physics bachelor's degrees awarded and physics faculty. These data will permit individual departments to see where they fit on the national landscape of physics bachelor's degree production.

A physics bachelor's degree is an excellent background for a broad range of careers outside the field of physics. SRC's [*focus on MCAT, LSAT and Physics Bachelor's*](#) presents scores on the medical school and the law school admissions tests for selected college majors. It shows that, as a group, physics bachelor's degree recipients achieve among the highest scores on the entrance exams for both MCAT and LSAT.

Physics Today Career Network commended by Boxwood Technology

Staff from *Physics Today* Career Network (PTCN), *Physics Today*, and Boxwood Technology came together on January 15 for their annual in-person meeting at Boxwood's headquarters in Hunt Valley, MD. Boxwood provides the technology platform for PTCN's five online job boards and three job fairs. Among the topics discussed were future product offerings, technology improvements, and troubleshooting. According to Boxwood founder and CEO John Bell, a recent internal audit of several online job boards of Boxwood clients revealed that [*Physics Today Jobs*](#) ranked highest in regard to overall user experiences. Bell noted the main reasons for that distinction: PTCN's inclusion of effective site selling points, excellent information on site demographics, prominent links to jobs and job searches, and overall excellent site functionality. PTCN is one of Boxwood's most active clients.



AROUND AIP

Here's to your health



March is National Colorectal Cancer Awareness Month, designated by the US Senate to raise awareness of this issue—also the topic of this month's health and wellness message from AIP Human Resources and [Aetna](#). According to the Prevent Cancer Foundation, cancer is "one of the most preventable life-threatening diseases facing Americans today." As public awareness of screening for colorectal cancer has grown over the last decade, mortality has decreased. You can significantly reduce your risk for cancer by:

- Improving your diet
- Increasing your physical activity

- Quitting smoking
- Getting screened

Learn more about reducing risk at the [Prevent Cancer Foundation](#) website. For Aetna's clinical policy bulletin on colorectal cancer screening, click [here](#).

MEMBER SOCIETY SPOTLIGHT

Olympians enter the semifinals



The 21st Winter Olympics may have come to an end in Vancouver, Canada, but physics Olympians around the world are still vying for a position at the [41st International Physics Olympiad](#) in Zagreb, Croatia, in July. Largely through the efforts of AAPT and dedicated teachers and mentors, 3,200 high school students from across the United States took the qualifying exam in January, contending for a spot on the [U.S. Physics Team](#). AAPT has announced the top [300 scorers](#), now eligible to compete in the semifinal round. AIP and most of its Member Societies support this worthwhile program. *AIP Matters* will report on the team's progress over the next few months. See AAPT's press release, entitled "[On the Road to Gold: U.S. Physics Team Semifinalists Announced](#)," on the *Physics Today* website for more details.



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](#).