



Director's Matters

By H. Frederick Dylla, Executive Director & CEO

Moveable type to flying bits

October is the time of the Frankfurt Book Fair, the longest running trade fair in existence; it traces its origin to the 12th century when barrels of handmade books were displayed on the banks of the River Main. The 2010 fair, held October 6–10, attracted more than a quarter million visitors from more than 100 countries; exhibitors topped 7500. Publishers of scientific, technical, and medical publications shared an entire floor of an exhibit building.



AIP has been exhibiting at the *Buchmesse* for the past 20 years; we use the annual event as a primary means of connecting with our international customers. Our sales and marketing staff met with many of our major international customers whose purchases of our journal content make up more

than two-thirds of AIP's journal income. AIP staff connected with our sales agents who represent customers in Japan, China, and other countries of the Far East; library consortia representatives from Mexico, Germany, Poland, and France; and potential new content distributors serving the Middle East.



Robert Harington, AIP's newly appointed Publisher for Partnerships, is spearheading an

effort to transform our customer-vendor relationships so that both parties work in tandem for mutual gain—to improve the content and accessibility of partner journals. "Publishing partnerships," the theme for our Frankfurt exhibit and promotion, complemented this campaign.

It would be difficult not to be influenced by the history and sheer scale of the event. I came away from the Frankfurt Book Fair with an increased awareness of the power of the printed word and image. There is still a significant amount of material at Frankfurt that is printed type on paper—usually more than two million volumes are on display. Just a short train ride away from the fairgrounds is the city of Mainz, home of Johannes Gutenberg's famous workshop and birthplace of the printing press. The combination of moveable metal type, oil-based inks, and a wooden press launched the print revolution. Many historians would count the printing press as the most important invention of the past millennium; it led to

the Renaissance, the Enlightenment, the Reformation, and mass literacy as the printed book and broadside became accessible to the common citizen. Visitors to the Gutenberg Museum in Mainz can see a replica of the Gutenberg press, two copies of his most famous product—the Gutenberg Bible—and a complete history of printing in the Western world and its earlier development in the Orient.



Gutenberg-style printing press from 1568. Such presses could make 240 prints per hour.

In Western culture, Gutenberg is the anointed inventor of printing. But the Gutenberg Museum shows visitors that individual type script was introduced in the fifth century BC by the Chinese on bone and ceramic pieces and that paper was introduced in the second century BC. The first "printing" might be attributed to Chinese paper rubbings from inked script carved into stone in the third century AD. Two centuries later, carved wood blocks were used to transfer both type and images. Transformational inventions are often a combination of new and preexisting ideas or processes. Gutenberg's ideas may not have been novel, but his methods made mass production possible and spurred the first printing revolution.

We are just at the start of the second revolution for the display and dissemination of text and images. The digital process transforms typeface characters and images into bits and bytes that can be shipped anywhere in the world with a key stroke and displayed on electronic screens that fit in our palm or tower over a sports stadium. Selling our wares in the shadow of Gutenberg's famous press reminds us of the power of both revolutions.

PUBLISHING MATTERS

AIP reaches co-publishing agreement with prestigious Chinese society

AIP has signed a new partnership agreement with the Chinese Society of Theoretical and Applied Mechanics. The two organizations will be co-publishing a new journal, *Theoretical and Applied Mechanics Letters* (TAML), which will be launched in January.

The journal will publish short, original articles in all areas of theoretical and applied mechanics; in several engineering-related fields, including aerospace, energy, and materials; and in biomedical, mechanical, coastal, civil, hydraulic engineering. See the [press release](#) for more details.



Two of the most influential scientists in international mechanics will serve as TAML Co-Editors: Jiachun Li of the Institute of Mechanics, Chinese Academy of Sciences (left), and Yonggang Huang of Northwestern University (right).

PHYSICS RESOURCES CENTER MATTERS

SPS National Council meets in DC

The [Society of Physics Students \(SPS\) National Council](#), consisting of 36 elected student and faculty representatives and a seven-member Executive Committee, convened in the Washington Metro area September 30–October 2 to deliberate and begin work on SPS projects for the coming year. The meeting opened on a high note, as Nobel laureate [John C. Mather](#) spoke to the Council about his work on the cosmic microwave background radiation and on the *James Webb Space Telescope*. Following his talk, Mather was elected as a Sigma Pi Sigma [honorary member](#), the highest level of membership.



Travis Barnett of Angelo State University presents John Mather with a certificate of honorary membership in Sigma Pi Sigma. At right is Sigma Pi Sigma President Diane Jacobs of Eastern Michigan University.



John Mather (back row, with certificate) poses with SPS Council members and AIP staff.

The Council tackled a host of issues, including continued planning and preparation for the 2012 Sigma Pi Sigma Congress, whose theme will be "Connecting Worlds through Science and Service." The Council also chose to build SPS's 2011 theme around the 100th anniversary of the discovery of the atomic nucleus, committed to drafting a letter to the National Science Foundation about continued support of undergraduate research, and agreed to continue SPS's diversity efforts. Representatives from the 18



Council members Courtney Lemon of California State Polytechnic University, Pomona and Gregory Topasna of the Virginia Military Institute treat young Spark!Lab visitors to a taste of laser science.

regional zones around the United States selected the outstanding SPS chapters for 2010, and drafted plans for zone activities and meetings in the upcoming year.

The meeting came to a close with outreach on the National Mall. More than a dozen SPS Council members led hundreds of visitors through laser science and rolling science activities at the Smithsonian Institution's [Spark!Lab](#).

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