



Director's Matters

By H. Frederick Dylla, Executive Director & CEO

Lasers light the stage for the 2010 Industrial Physics Forum

AIP and its Member Societies recognize that we have to find ways to more effectively support the industrial members of our community. These individuals comprise the largest segment of the workforce trained in the physical sciences, and they are, for the most part, applying their knowledge to develop or support technologies that enhance our way of life.

One of the primary ways AIP reaches out to this group is by sponsoring the annual Industrial Physics Forum (IPF). The theme of the IPF changes each year, reflecting the diverse fields in which physicists are employed. Through most of the IPF's 52-year history, the forum was hosted by an AIP Corporate Associates member company and

showcased that company's expertise and R&D portfolio. However, with the changing landscape of the industrial R&D enterprise, we have found—over the past five years—that coupling the IPF with Member Society meetings reaches a broad constituency of industrial scientists more effectively, while enhancing the Member Society meeting's program offerings for industrial attendees.



Corporate Associates Advisory Committee members, from the left: Zuyu Zhao (Janis Research), David Seiler (NIST), and Ben Snavelly (AIP). Seiler and Snavelly also served on the 2010 IPF planning committee.



From the left: Charles Synborski (CVI Melles Griot; OSA Corp. Assoc. chair), Georg Nadorff (CVI Melles Griot; IPF planning comm. member), Liz Dart Caron (AIP), Carl Weimer (Ball Space; speaker), Michael Stanley (Chroma Technologies; IPF planning comm. member), Jim Hollenhorst (Agilent Technologies; AIP Corp. Assoc. Advisory Comm. member), Allison Reznick (OSA), and Philip Hammer (AIP).

Two weeks ago, the Corporate Associates from AIP and OSA teamed up for the first time to offer the 2010 Industrial Physics Forum, held in conjunction with the Frontiers in Optics/Laser Science meeting in Rochester, NY. This year's theme, "Applications of Laser Technology," was an appropriate industry-themed recognition of

LaserFest, celebrating the 50th anniversary year of the invention of the laser. This versatile device went from being regarded as little more than a scientific curiosity during its first decade—an 'invention waiting for an application'—to being an essential part of the world's economy for its use in communications, medicine, and manufacturing, and an essential research tool for basic and applied science. IPF theme sessions took a close look at applications in biomedicine, environmental science and metrology.

Despite the space constraints of the Rochester Convention Center, the IPF was a smashing success, with standing room only for most of the talks and often with dozens of eager conference attendees in the hallway straining to hear the speakers. With the demand exceeding the supply of seats, it was a good year to experiment with capturing the presentations on video. On the advice from AIP's web technology team, we invested



Several members of local Society of Physics Students chapters attended the meeting. Pictured (from the left) are University of Rochester SPS members: Joshua Geller (SPS reporter), Corey Adams, Dev Khaitain with OSA Fellow Boris Zeldovich.

in making the IPF content available to a broader audience by posting the presentations on the IPF website. The goal is to extend our reach to the broad physics community, especially to those who contend with restrictive policies for employee travel to professional meetings—a common reality of the recession and a growing phenomenon in corporate America. I encourage you to [visit the site](#), view a few presentations, and send your feedback to assoc@aip.org; it will help our staff make decisions about how to share meeting content in the future. Science writers Jason Bardi and Phil Schewe (from AIP News and Media Services) and *Physics Today's* Jerney Matthews also attended the IPF and contributed to the insightful [IPF blog](#). They provide excellent summaries of each session and interesting commentary, again to amplify the meeting's value and reach a wider audience.

The conclusion of the 2010 IPF does not put a rest to AIP Corporate Associates' conference activities. In fact, within a 13 month span, AIP will have put on three Industrial Physics Forums. Planning is well underway for an IPF at the [2011 APS March Meeting](#) on superconductivity, and a second IPF in the fall at the AVS Symposium and Exhibition on energy.

PUBLISHING MATTERS

Peer X-Press ramps up for AIP Conference Proceedings



Peer X-Press (PXP) will soon expand its role to become both a submission and production tool for the popular *AIP Conference Proceedings Series*. PXP has been a long-time partner with the *AIP*

Conference Proceedings as a tool available for conference editors who wish to conduct full peer review for their proceedings, and this full-service option will continue. What's new is the addition of a slimmed-down version of PXP, which will soon be used by AIP staff to provide user-friendly tools for submission, organization, and production of all *AIP Conference Proceedings*.

The newly-established streamlined system will automate the entire process from submission to publication. It will provide authors with a convenient way to submit their manuscripts, assist conference editors in efficiently managing and reviewing the submissions, and perform many of the necessary production functions, such as lineup, table of contents generation, subject index and delivery of print-ready files for electronic and hard-copy distribution. The result is a combined process that will increase efficiencies for authors, conference editors, and publication staff.

The anticipated number of manuscript submissions from these conferences will represent a 25% growth in the volume of submissions PXP currently receives. Other journals are also expected to begin using PXP in the coming year. In preparation for this growth, AIP is investing in the PXP infrastructure and has doubled the number of document conversion engines. Watch for more news from PXP and *AIP Conference Proceedings* in 2011.

PHYSICS RESOURCES CENTER MATTERS

History of physics at UIUC

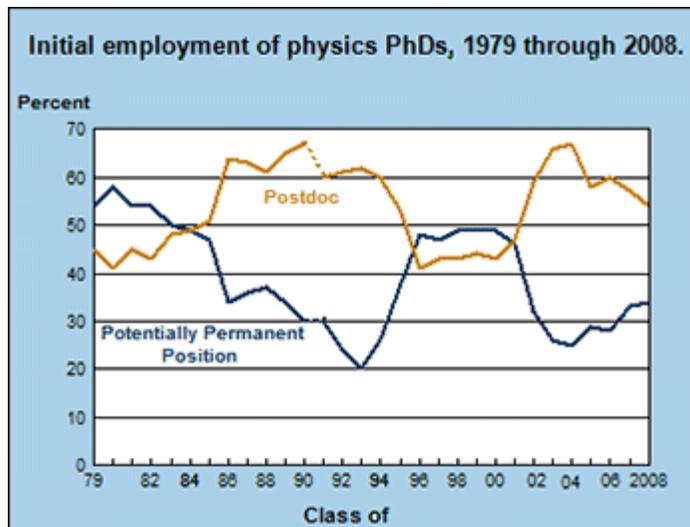
In 2007, the physics department at the University of Illinois at Urbana-Champaign (UIUC) donated over [1,500 images](#) to the [Emilio Segrè Visual Archives](#) (ESVA). This past summer, UIUC sent additional photos which ESVA is featuring on its home page during the month of November. The photos show many distinguished physicists who have taught, studied, or visited in the department since its inception in the 1920s.



Scanned at the American Institute of Physics
 First Mossbauer Conference, June 1960, University of Illinois. Front row, from the left: Rudolf Mossbauer; Robert Pound; Anatole Abragam. Back row, from the left: Max Swerdlow; Hans Frauenfelder; Chien-shiung Wu.
 Credit: Department of Physics, UIUC, courtesy AIP Emilio Segrè Visual Archives

Physics PhDs one year after graduation

The Statistical Research Center's new publication, [focus on Physics Doctorates One Year Later](#), illustrates how the proportion of new PhDs accepting permanent positions versus temporary postdocs has fluctuated over time. As shown in the figure, the percent of new physics PhDs who accepted potentially permanent positions has increased for the last five years. Yet, even though the fraction who took postdoctoral positions dropped by more than 10%, the



majority of new PhDs still accepted a postdoc after receiving their degree. The report also shows how citizenship and subfield of dissertation influence initial career choice.

Each year, the AIP conducts a survey of recent physics and astronomy doctorate recipients to inquire about their initial career pursuits. This *focus on* is the first in a series about the initial employment outcomes of physics PhDs who earned their degree in the US. The report series investigates the physics PhD classes of 2007 and 2008 which had 1,460 and 1,499 PhDs respectively. Stay tuned for more insights into the demographics of the physics community.

AROUND AIP

"Visionary Distillations"



Photographer Robert Cassanova with two of his photographs. Nautilus Shell Reflection (left) and St. Augustine Lighthouse Stairway, depict spirals in nature and architecture.

On Monday, November 8, the American Center for Physics hosted its semiannual art exhibit reception, featuring the black-and-white photography of Robert Cassanova, the paintings of Kim Dylla, and the sculptures of Minna Newman Nathanson in ACP's newest exhibit, "[Visionary Distillations](#)." Members of the AIP Governing Board, members of the local art and physics communities, and ACP employees convened to hear presentations from the artists and to mingle with colleagues.

ACP art curator Sarah Tanguy gave a brief introduction of the three artists. Kim Dylla spoke about the genesis of her passion for the intersection of art and physics. Growing up around laboratories and physicists engendered a desire to capture the beauty of instruments and machinery through art. Minna Newman Nathanson described how her minimalist sculptures aim to demonstrate the innate beauty all around us. Robert Cassanova discussed his passion for capturing images with photography that emphasize symmetry, and the flow of light and form. "Visionary Distillations" will run at ACP through April, 2011.



Artist Kim Dylla with her painting, *Stellarator III*, 2010, oil on canvas, 36 x 36".

WHAT'S HAPPENING THIS WEEK

Monday–Friday, November 15–19

- The [2nd Pan-American/Iberian Meeting on Acoustics](#), Cancun, Mexico

Tuesday, November 16

- Brown bag lunch (depending on interest): "Beating the Sugar Blues," 12:30 pm, conference rooms B and C. (Pub Center)

- Microsoft Outlook training. (Pub Center)
- Suggestions due for AIP Intranet naming contest.
- AIP-hosted dinner and library tour for attendees of the STM Intensive Course in Journal Publishing. (ACP)

Friday, November 19

- Open enrollment ends; paperwork is due to Human Resources.
- AIP Intranet debuts under its new name; contest winner is announced.

Through Monday, November 22

- Donations accepted for the ACP food drive. Items needed include: canned vegetables/fruits/meats, pasta and sauces, rice, beans, cereals, and peanut butter. (ACP)

Through Friday, December 10

- Donations of new toys accepted for Toys-for-Tots toy drive. Donations benefit children in Suffolk County, NY. (Pub Center)

We invite your feedback to this newsletter via email to aipmatters@aip.org.

For past issues of this newsletter, visit the [AIP Matters archives](#).