Director’s Matters

One of the most interesting aspects of my job as AIP's Executive Director is being exposed to the rich array of science and technology presented in AIP and Member Society scientific journals and publications. Over the last three weeks, I attended Editorial Board meetings of four journals published by AIP: Physics of Plasmas, Physics of Fluids, Journal of Applied Physics, and Applied Physics Letters.

By tracing the development of just one field of science—plasmas, I can illustrate the vibrancy of science that shows up in all these journals. Plasma is the so-called "fourth state" of matter that occurs when matter is heated to such high temperatures that atoms separate into free electrons and positive ions. More than 99% of the matter in the universe, including stars and galaxies, is in the plasma state.

Much of the frontier science of plasmas is published in AIP's journal Physics of Plasmas (PoP), spanning both theoretical and experimental studies from laboratory to astrophysical plasmas. AIP's Journal of Applied Physics and Applied Physics Letters and AVS's journal JVSTB publish practical applications of plasmas, such as lighting, displays and plasma-processing tools that are used to produce microelectronics. For the last 50 years, the "holy grail" of plasma physics has been the attempted demonstration of hydrogen fusion—the energy source of stars—in a laboratory setting. An international focus of this R&D enterprise is the multibillion-dollar International Tokamak Engineering Reactor being built in Caderache, France. PoP will continue to publish studies that underlie the design and eventual performance of this unique machine.

We are introducing a new feature in AIP Matters: Journal Spotlight will feature individual journals published by AIP and our Member Societies. We invite you to read our first journal spotlight (below) on the Physics of Plasmas.

Sincerely yours,
Fred

Publishing Matters

Back to the future

For the AIP-owned journals on Scitation, the second phase of a multiyear backfile project was recently completed, which added fully linked references and "cited-by" links enabled via CrossRef, for articles published from 1981 to 1990. Earlier this year, the first phase of this project was completed with the release of backfile reference linking for articles published in the AIP-owned journals from 1991 to 1997. This backfile enhancement project is ongoing, with the ultimate goal of adding references to all articles in AIP's online archive.

Physics Resource Center Matters

AIP arranges media coverage for ASA Meeting

AIP media relations staff worked hard on last week's 154th Meeting of the Acoustical Society of America in New Orleans, LA, November 27 - December 1, to attract journalists to attend and cover the meeting. Staff sent out three press releases after reviewing over 1,000 abstracts to find newsworthy stories, such as a floating opera house, the sounds made by the elusive ivory-billed woodpecker, whale songs, and underground examinations of cracks in dams. One unique feature of ASA meetings is the presence of "lay-language papers" edited by AIP and posted on the meeting's news website. AIP attended the
meeting, filed news reports in real time, scouted for new story ideas, and reported to the ASA Public
Information Committee. The LA Times, Reuters, WTOP, New Scientist and other media outlets
covered the meeting.

Around AIP

Holiday giving
In College Park, the ACP Events Committee is holding a pajama
drive and coordinating donations to United Way, both through
December 14. The Pajama Program benefits children who are in
foster care or waiting to be adopted, supplying new pajamas and
books to needy children in the area. To donate, drop off new, unused pajamas
and books in the front lobby box. United Way pledge forms and a list of
participating charities can be obtained from Human Resources or the ACP Events Committee.
Donations can be made to the United Way general fund, or designated to a specific charity of choice.

Melville is holding both a food drive and a toy drive. The food drive is
sponsored through Long Island Cares. The goal is to provide emergency food
assistance, help families achieve self-sufficiency and to educate the public
about hunger on Long Island, NY. Drop your donations in the collection barrel
in the lunchroom until December 14. The Toys for Tots drive is sponsored by
the Marines of Alpha Company, 6th Communications Battalion, who are
working to make the holidays brighter for Suffolk County children. Toys will be
collected until December 12 in the lunchroom.

Journal Spotlight

**PHYSICS OF PLASMAS**

*Physics of Plasmas* (PoP) is AIP's premier journal devoted to original experimental and theoretical
contributions to the physics of plasmas, the fourth state of matter. Plasmas consist of freely moving
charged particles, i.e., electrons and ions, and possess unique physical properties. They occur
naturally in space and astrophysical systems as, for example, auroras and the solar corona, and have
been created in the laboratory for a variety of purposes on earth—e.g., the fluorescent light you are
likely sitting under as you read this short note contains a plasma. Plasma physics was first published
by AIP in 1958 as part of the journal *Physics of Fluids* (and later in its own volume as *Physics of Fluids
B*), but growth in the field dictated a separate journal, which came into existence in 1994. The scope of
the journal ranges from the theory of plasma instabilities and other basic properties, the nature of
space and astrophysical plasmas, and plasma interactions with intense lasers and particle beams, to
the experimental pursuit of plasma applications such as fusion energy, flat panel displays and
spacecraft engines.

The PoP editorial office is located at the Princeton Plasma Physics Laboratory in Princeton, New
Jersey. Ronald Davidson has been the Editor of *Physics of Plasmas* for AIP since 1991, when the
journal was still *Physics of Fluids B*. Under his leadership, the journal has grown to become the
acknowledged preeminent international journal in its field. He is assisted by Resident Associate Editor,
Stewart Zweben, and a board of 18 associate editors from institutions around the globe. There are two
members of the editorial office staff who handle the process of peer and editorial review for the journal:
Sandy Schmidt, the Assistant Editor, and Laura Wright, the Assistant to the Editor. The journal
publishes over 800 manuscripts a year, including about 80 invited and review papers from the annual
meeting of the APS Division of Plasma Physics.

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

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