



# PHYSICS FLASH

News from the Department of Physics ~ August 2007

## ASU PHYSICS

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## FROM THE CHAIR...

The beginning of the semester is filled with tremendous anticipation for everyone at the

University as we welcome a new class of students along with our continuing students. In every way it is evident that Physics is at the foundation of most programs in science and engineering, and it is ever more critical to the general education of all of our students. It is both a pleasure and a challenge to see the tremendous enrollment growth in all of our general studies classes and in our undergraduate majors program. This semester alone our General Studies program of foundational physics courses has an enrollment of over 3500 student-classes, and our majors program and honors courses are fully subscribed.

For many students, the quantitative approaches gleaned in physics courses represent a challenge, but the rewards for their efforts are clearly evident. The skill to analyze complex phenomena using mathematical models enables our students to solve complex problems wherever they find them. With ever expanding technology improvements in diverse fields from medicine to energy to electronics, the

## IN THE SCIENCE SPOTLIGHT ASU Physics faculty and staff are *CENTER STAGE* on research and service.

Frank Tsen and Wayne Easterling are no strangers to ASU Physics nor are they strangers to success in their respective fields. Each was recently recognized for their important contributions by the larger Physics community.



### Kong-Thon (Frank) Tsen Professor of Physics

Professor Tsen's research was recently highlighted in a feature article in New Scientist magazine - a prestigious international news magazine on discoveries and inventions in sciences and technologies. The article reported on Dr. Tsen's research on the inactivation of viruses by visible femtosecond laser pulses. The research suggests many practical applications in the prevention of blood-borne viral diseases such as hepatitis C and AIDS.

The complete New Scientist article can be viewed at:

<http://technology.newscientist.com/channel/tech/dn12368-visible-light-pulses-knock-out-viruses-in-blood.html>.



### Wayne Easterling Laboratory Coordinator Sr. Physics Instructional Resource Team

Wayne, an ASU Department of Physics alumnus, was elected Vice President of the Physics Instructional Resource Association (PIRA) at the August meeting of the American Association of Physics Teachers (AAPT) in Greensboro, SC. Following a year as Vice President, he will serve an additional three years in the other offices in the PIRA presidential sequence. Easterling earned his BS in Physics in 1997, followed by a M.Ed.

in Curriculum and Instruction in 2000, also from ASU. He holds a teaching certificate for secondary education in physics. He has been part of the Physics Instructional Resource Team (PIRT) staff in the Department of Physics since 1999. PIRA is a national affiliate organization of the AAPT especially concerned with the use and development of resources for physics instruction and outreach. Easterling has found the professional development opportunities and support available through PIRA personally very valuable and looks forward to helping the organization continue to contribute to physics education.

approaches learned in physics are playing an ever greater role in advancing our society and our economy.

The students at ASU bring tremendous energy and commitment to achieve in their studies in physics. It is just a pleasure to welcome such a dedicated group.

- **Robert J. Nemanich**  
**Professor and Chair**

## **SOCIETY OF PHYSICS STUDENTS ELECT NEW LEADERSHIP FOR 2007**

The Society of Physics Students has elected officers for the 2007-2008 academic year. This year's officers are: Chris Friedline (President); Karin Dethloff (Vice President); Ryan Reynolds (Treasurer); and Shawna Uher (Secretary). The Society of Physics Students exists to help students transform themselves into contributing members of the professional community.

*If you are interested in joining the Society of Physics Students or learning more about the organization, please visit the SPS room located in PSF487.*

**Comments, questions, and newsletter contributions can be directed to Peg Stuart at [margaret.stuart@asu.edu](mailto:margaret.stuart@asu.edu).**

## **THE MORE THE MERRIER ASU Physics welcomes new faculty and staff**

### **Cecilia Lunardini, ASU Assistant Professor of Physics**

Dr. Lunardini is the newest addition to the Physics faculty at ASU and comes to us via the University of Washington. Dr. Lunardini will also be a RIKEN Physics Fellow and work closely with the subatomic theory group at Brookhaven National Laboratory. Her research is in the area of theoretical particle-physics. She will strengthen department efforts in subatomic physics and build connections between our theory group in physics and the growing astronomy/astrophysics program in the School of Earth and Space Exploration.

### **Kathy Hermanson, Business Manager**

Kathy comes to Physics from the ASU Department of Geography where she served as the lead financial and personnel specialist. During her 20+ years as an ASU employee, Kathy has served as a systems analyst for ASU Financial Services where she was instrumental in developing financial systems training manuals, seminars, and the helpdesk. She will focus on management, analysis, and strategic planning of business operations for the department.

### **Deborah LaBranche, Accounting Specialist**

Deborah joins the office team after previously working in the private sector, the government (US Navy and Army), as well as in the ASU Department of Psychology. She will be focusing on payroll maintenance and troubleshooting as well as assisting in other business functions. She is also the proud mom of a current ASU freshman.

### **Amanda Wright, Graduate Program Coordinator**

Amanda transfers her skills and experience as a Retention and Recruitment Specialist with the ASU College of Education to the Physics Department where she will help guide our graduate students through their ASU careers from the recruitment stage through to graduation. In addition to being a full-time employee, Amanda is also pursuing her Masters in Public Administration.

## RIDING OUT THE MONSOON STAFF NAVIGATE THE BUMPY WEATHER THAT COMES WITH STARTING A *NEW* SEMESTER

A new semester, particularly the fall semester, is always an exciting and challenging time in any department. A wonderful mix of potential, experience, and interests is found in the diversity of students who make their way through the office doors in the days leading up to the new semester. It is a time of anticipation and energy that seems barely held in check. Books, recitations, keys, overrides, classroom space, maps, rosters, labs, added classes, speak tests, comps, new faculty, returning faculty, payroll issues, budgets, orientations, tuition waivers, PeopleSoft, and the occasional possessed elevator! It is fitting that the fall semester starts during the monsoon season here in Arizona; for it too is a microburst of activity and change, surge and rejuvenation.



**Physics staff members, Karen Burrington and Sabrina Mathues, welcome new students and parents during the College Fair on August 17th.**

This semester is off to a wonderful start thanks to the collaborative efforts of staff and faculty. With a goal of reaching out to students through more individualized service, staff have connected with program directors and administrators to cultivate positive relationships with both

incoming and veteran students. Staff are getting to know students beyond what recitation they are teaching or what override they need. There is a genuine interest in where they are coming from and what they hope to do in the future. That kind of service results in a wonderful office atmosphere that dispels the notion that we - staff, faculty, and students - all have different agendas. The reality is that our agendas are the same: working together to create a positive, meaningful physics education experience. That may manifest itself in service, research, teaching, or learning, but the goal is still the same. It is as selfish as it is selfless as we want to be *included* in the positive experience as much as we want to make it available for others.

Unabashedly biased, I am particularly proud of the staff and how they have stepped up to the challenge of reaching that goal. They have worked tirelessly to promote a sense of community in our new class of undergraduate and graduate students. That is no easy task considering all the new policies, procedures, and systems that were rolled out this summer. It is with great satisfaction that I observe students wandering into the office not only for answers and guidance, but sometimes just to chat with a staff member - now a familiar, reliable facet of their college experience.

August has been a wild month to say the least. So now, as the monsoons start to dissipate, we look forward to the steady transition to autumn. The intensity eases - both in temperature and turmoil - and we settle in to our work with satisfaction of having ridden out one storm and the confidence to do it all again eleven months from now.

**- Margaret (Peg) Stuart  
Department Manager**

*For more information about Department of Physics staff, please visit <http://physics.asu.edu/staff.php>*