



PHYSICS FLASH

News from the Department of Physics ~May 2007

ASU PHYSICS

Department of Physics
Arizona State University
PO Box 871504
Tempe, AZ 85287
480.965.3561

ASU PHYSICS ALUMNUS NABS PRESTIGIOUS FELLOWSHIP

Physics alumnus Paul Schmit will be headed northeast this fall to begin his graduate studies at Princeton University. A Glendale native, Schmit has braved the deciduous climate before, studying plasma fusion at Princeton and MIT through a U.S. Department of Energy fellowship in the summer of 2006. When he returns to New Jersey in August, he'll be backed by the National Defense Science and Engineering Graduate Fellowship, a prestigious three- year award granted to approximately 200 new graduate students each year by the U.S. Department of Defense. Since 2003, only 6% of applicants in the area of physics have been chosen to receive the award. Students are evaluated on the basis of academic and overall ability in science or engineering. As recipients of the award receive external funding for their graduate education, they are ensured greater

STOP TO SMELL THE ROSES With the 2006-07 academic year in the books, Physics faculty, staff, and students came together to celebrate student **achievement, highlight outstanding teaching and service, and look to the future of physics at Arizona State.**

On May 4th, the Department of Physics held its annual Awards Reception at the University Club. Recognizing that student success is the motivation for all that happens in the Department, Physics Chair Robert Nemanich noted how contributions in every area of the department - teaching, support, advising, research - have advanced the quality of the education experience in physics. He also encouraged department personnel to take the time to appreciate the lasting impact of what they do. "Many of us spend our days so focused on teaching, research, and administration that we forget to take time to appreciate what we and those around us have accomplished," Nemanich said. "All of you here have played an integral role in shaping this Department and moving it into a new era." The reception concluded with the announcement of student, faculty, and staff scholarship and award recipients. Many student scholarships and fellowships are made possible through the generosity of donors who established endowments and funds to recognize student achievement. The Wally Stoelzel Physics Scholarship and Fellowship and the John and Richard Jacob Award for Undergraduate Research are just two examples of how donors positively impact the

quality of education available at ASU. "Receiving this scholarship motivates me to continue to strive for excellence," says physics undergraduate Andrew Gamalski, recipient of the John C. Wheatley Research Scholarship, "this scholarship will enable me to concentrate my efforts on rigorous physics classes and cutting edge research."



Outstanding Undergraduate Award winner Hosam Yousif with ASU Physics Chair Robert Nemanich

In addition to student scholarships and fellowships, awards were also given to department personnel recognized for Outstanding Instruction by a Faculty Member, Outstanding Instruction by a Graduate Student, and Outstanding Staff Member.

For complete descriptions of scholarships available through the ASU Department of Physics, visit the Scholarship Information page at <http://physics.asu.edu/>. For more pictures of award recipients, visit the News page at <http://physics.asu.edu/>.

opportunity to pursue their own research interests: Schmit plans to continue his work in theoretical plasma physics and fusion. During his undergraduate tenure at ASU, Schmit worked most closely with Professors Stuart Lindsay, Richard Lebed, Ralph Chamberlin, and John Shumway; and he credits his recent achievements to their investment in him.

2006-07 Department of Physics Award Recipients

Molecular Imaging Corporation Endowment Undergraduate Award - **Hosam Yousif**
 Molecular Imaging Corporation Endowment Graduate Award - **Shuo Huang**
 Vesto M. Slipper Scholarship - **Murdock Hart**
 Wally Stoelzel Physics Scholarship - Undergraduate - **Jeffrey Ammon**
 Richard G. Stoner Memorial Scholarship - **Joseph Scott**
 John C. Wheatley Undergraduate Research Scholarship - **Andrew Gamalski**
 John and Richard Jacob Award for Undergraduate Research - **Megan Brown**
 Mark Anderson Outstanding Thesis Award - **Sutharsan Ketharanathan**
 Wally Stoelzel Physics Scholarship - Graduate - **Amber Straughn**
 Dean's Circle Scholarship - **Jeffrey Ammon**
 Outstanding Undergraduate Award - **Hosam Yousif**
 Outstanding Instruction by a Graduate Student - **Adam Blake**
 Outstanding Staff Member - **Margaret Stuart**
 Outstanding Instruction by a Faculty Member - **Michael Treacy**



5/29 1ST 5-WEEK SUMMER SESSION FIRST DAY

6/29 1ST 5-WEEK SUMMER SESSION LAST DAY

6/30 END OF THE FISCAL YEAR

7/3 1ST 5-WEEK SUMMER SESSION GRADES DUE

physics Undergrads Shine at Symposium **The 3rd Annual ASU Department of Physics Undergraduate Research Symposium highlighted individual achievements of ten undergraduate physics students engaged in research.** Held on April 27, 2007, the symposium was an opportunity for undergrads to showcase their hard work in addition to giving them a taste of the often nerve-racking world of scientific presentations. The department celebrated the event with sodas and pizza, as researchers presented their projects in short format which included a Q&A session to an intimate audience of peers and faculty. Presentations were given by undergrads Jeffrey Ammon, Daniel Bank, Megan Brown, Derek Caselli, Miguel Garcia, Robert Pennington, Mark Sanger, Paul Schmit, Cory Stephenson, and Hosam Yousif. A special thank you to the professors who served as mentors for these students, guiding them through such a meaningful component of a comprehensive physics education.



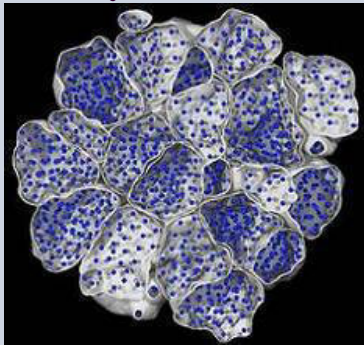
FROM THE CHAIR . . .

It is indeed a pleasure to say the words 'Congratulations on your graduation.' There are few events more joyful than graduation day. It is the time that we celebrate our students' academic achievements, their personal growth and their friendships. I enjoyed people watching at both the ASU Commencement and the Convocation of the College of Liberal Arts and Sciences. Both events were held on consecutive days at the Wells Fargo Arena. Before and after the events, friends and relatives gathered with 'their' graduates. They all looked dignified, distinguished, and educated in their academic

regalia. At the ASU Commencement President Crow was enthused at the success of all of the students as he challenged the graduates of the New American University. This is a special day for PhD students and their faculty advisors who share a moment in an exchange called *Hooding*. This is the

WORKSHOP FOCUSES ON EMBRYONIC DEVELOPMENT

At the ASU Center for Biological Physics (CBP) annual conference, you can always expect a great discussion. This year was no exception. With the theme of "Quantitative Approaches to Early Development.", this year's workshop took place at the Fiesta Inn Resort in Tempe from May 20-23, 2007. The goal: bring together a diverse audience of theoreticians, modelers, and experimentalists interested in quantifying processes, such as gastrulation and neurulation, which are fundamental in constructing shape and form in the early development of organisms. The workshop was co-funded by the National Science Foundation, Division of Integrative Organismal Systems and organized by ASU Professor Timothy Newman and co-organizer Kees Weijer from the



Cut-away view of a simulated cell cluster, showing embedded "sub-cellular elements" (produced by Timothy Newman and Jens Weismueller)

University of Dundee and coordinated by Catherine Cooper and Peg Stuart - both ASU Physics staff. A more intimate affair than previous CBP workshops, the audience consisted of sixteen participants from diverse backgrounds - all experts in their fields - with an interest in understanding early embryonic development. Of the sixteen participants, there were nine developmental biologists, four biophysicists, two bio-mathematicians, and one bioengineer. The workshop generated intense discussion and has already led to the forging of several new collaborations.

moment that the faculty sponsor has the honor of placing the Hood on their colleague's shoulder. Several of our new PhD colleagues and faculty clearly enjoyed the moment which represented the pinnacle of their time together.

At the College's Convocation Dean Wheeler spoke of the value of a liberal arts education and the challenges our students will face. For me, it was indeed an honor to greet our Physics' Bachelor of Science recipients just before they received their degrees. We all know that physics is a challenge at every level, but the powerful analytical techniques, mastered by our students, brings them confidence to tackle new problems and to discover previously unknown solutions.

The following day I had the chance to walk up the isle with one of my own PhD students at the NC State graduation in Raleigh, North Carolina. I am sure that anyone watching then would have recognized how special graduation is to everyone touched by the moment.

Sincerely,

Robert J. Nemanich, Professor and Chair
ASU Department of Physics

"There are few
events more
joyful than
graduation day."

HAPPY ANNIVERSARY!



Physics staff member **JIM KRIDER** and his wife Kathleen who celebrated their 40th wedding anniversary this spring! Here's to the next 40 years!

Comments, questions, or content suggestions can be directed to Peg Stuart at

margaret.stuart@asu.edu