It’s hard for me to believe, but I’ve just completed my seventh year as Chair, and what a year it’s been! From the highs associated with the wonderful accomplishments of our faculty, staff, and students, to the lows of the devastating summer flood, we’ve seen it all this year. Riding a wave of new funding in space physics and nanoscience, the Department reached the important milestone of more than $15 million in external funding for the year. Our faculty received numerous awards and honors for teaching and research. We had continued success with student applications for major awards and scholarships with students receiving the Goldwater award, the Perlmutter Award, and also being recognized by the University for outstanding Master’s thesis and outstanding teaching assistant work. Staff members were honored with awards for their work excellence and community service and also recognized for their work commitment. We were also fortunate and delighted to attract two new outstanding faculty, Gregory Howes and Randall McEntaffer, to the Department.

All of this great news was tempered somewhat by the record flooding that occurred in June. The flood waters severely affected our research efforts, particularly for our faculty with laboratory space in the Iowa Advanced Technology Laboratory. The IATL had nearly two feet of flood water throughout its ground floor, an area home to eight laser labs, an organic semiconductor lab, a molecular beam epitaxy lab, and a microfabrication lab, all either run by or used by Physics faculty. In addition, uncontrolled humidity in the building damaged equipment in the upper floors, where faculty have additional lab space. As of November, we have still not fully reoccupied the building, nor have we fully assessed the extent of the damage to our equipment. Fortunately, the University and College have been very supportive throughout this ordeal, and we remain hopeful that we’ll get back to normal in the coming months.

Finally, this will be my last “Letter from the DEO,” as I will be stepping down as Chair next August. My time as Chair has been both rewarding and challenging, and I sincerely appreciate all the support I’ve received from the faculty, staff and students in the Department, my fellow DEOs, the Deans in CLAS and, of course, our alumni and friends.

— Tom Boggess

Physics and Astronomy Research Funding

This past fiscal year the Department reached a milestone by bringing in more than $15 million in annual research funding. Over the years, the Department has consistently been a leader in the College of Liberal Arts and Sciences when it comes to securing external research funding, and over time this funding has steadily increased. This year the research areas of space physics and condensed matter physics saw the greatest increases in external funding.

Several projects have played a huge part in funding the space physics research program at the University of Iowa. Some of these projects include the Cassini Radio and Plasma Wave Science (RPWS) Investigation, the Juno Waves Investigation, and more recently the Radiation Belt Storm Probes (RBSP) program. Another research area to receive significant funding was the condensed matter physics program, thanks to a U.S. Dept. of Defense five-year multi-million dollar award, which is a collaborative project with four other institutions to study spin-mediated coupling in hybrid

(continued on page 4)
Faculty Directory

**Astronomy/Astrophysics**
Kenneth Gayley, Assoc. Professor
Philip Kaaret, Professor
Cornelia Lang, Asst. Professor
Randall McEntaffer, Assistant Professor
Robert Mutel, Professor
Steven Spangler, Professor
John Neff, Professor Emeritus

**Atmospheric & Environmental Physics**
Paul Kleiber, Professor

**Condensed Matter/Materials Physics**
Michael Flatté, Professor
Craig Pryor, Assistant Professor
John Schweitzer, Professor
Thomas Boggess, Professor
John Prineas, Associate Professor
Arthur Smirl, Professor
Markus Wohlgenannt, Associate Professor

**Elementary Particle Physics**
Michael Flatté, Professor
Mary Hall Reno, Professor
Vincent Rodgers, Professor

**Experimental Physics**
Usha Mallik, Professor
Jane Nachtman, Associate Professor
Charles Newsom, Associate Professor
Yasar Onel, Professor
Edward McCalliment, Professor Emeritus
Edwin Norbeck, Professor Emeritus

**Nuclear Physics**
William Klink, Professor
Wayne Polyzou, Professor
Gerald Payne, Professor Emeritus

(continued on page 3)
Faculty Highlights/Research

On September 10, 2008, particle physics faculty and staff at the University of Iowa, along with U.S. and international colleagues, celebrated the successful beam run of particles at the world’s largest atom smasher, the Large Hadron Collider (LHC) accelerator located at CERN in Geneva, Switzerland. The Department has many high energy physics faculty, staff and students working directly on the ATLAS and CMS detectors in the Large Hadron Collider facility. UI faculty members actively working on these projects include Professors Usha Mallik, Jane Nachtman, Charles Newsom, Ed Norbeck, and Yasar Onel. Other high energy physics group members include engineers, assistant research scientists, postdoctoral research associates, and graduate and undergraduate students.

For more information on the department’s involvement with the LHC, read the article “Large Hadron Collider Becomes Operational” on page 7.

John Prineas is a co-investigator on a recently renewed, $2.5 million dollar grant, “Continuous Near Infrared Glucose Monitor,” awarded to the University of Iowa from the National Institutes of Health. The grant brings together an interdisciplinary research team in the Optical Science and Technology Center, with principal investigators from the departments of physics, chemistry, engineering, and the UI College of Medicine, to develop a continuous optical glucose microsensor for the treatment of diabetes. Prof. Prineas will contribute through continued research and development of mid-infrared optoelectronic devices for the microsensor.

Prof. Markus Wohlgenannt was named a College of Liberal Arts and Sciences Dean’s Scholar for 2008-2010. The Dean’s Scholar award recognizes faculty who demonstrate excellence in teaching and scholarship or creative work early in their careers.

Markus Wohlgenannt was promoted to the position of Associate Professor.

New Faculty

This fall the Department welcomes new faculty members Gregory Howes and Randall McEntaffer as assistant professors to The University of Iowa.

Prof. Howes received his M.S. and Ph.D degrees in physics from UCLA and was previously a visiting assistant professional research astronomer at the University of California, Berkeley. His research interests are in theoretical and computational plasma physics, and he plans to establish a research program that will focus on high-performance computational studies of kinetic plasma turbulence in space and astrophysical plasmas.

Prof. McEntaffer is a University of Iowa graduate (BS, physics and astronomy), who completed his M.S. and Ph.D degrees in astrophysics at the University of Colorado in Boulder, CO, and was previously employed there as a research associate at the Center for Astrophysics and Space Astronomy. His research interests include the development and use of space-based X-ray astronomy instrumentation, and in particular, specializing in grazing incidence reflection spectrometry and detection techniques for soft X-rays.
Outreach

The Physics and Astronomy department was very active in its outreach efforts this year with its Hawk-Eyes in Science program, the Café Scientifique program, and beginning this year, the introduction of the annual Physics and Astronomy Demonstration Show. Following are updates and highlights from these programs over the past year.

First Annual Physics and Astronomy Demonstration Show a Huge Success

On February 13, 2008, the Department hosted its first annual Physics and Astronomy Demonstration Show. Even though the weather was terrible, the snow and ice didn’t keep people from coming; the show was presented to a full house in Lecture Room 1 of Van Allen Hall. Hosted by Vincent Rodgers, Dale Stille, Cornelia Lang and many of the department’s graduate and undergraduate students, together the demonstration team rocked the full house with CO2 powered bicycles, levitation rings, a collapsing 55-gallon drum, lasers, ping pong ball rocket guns, and exploding balloons. Because of the success of this pilot event, the Department will host a demonstration show every February. Watch for an announcement of the next demonstration show on the Physics and Astronomy’s home page. We look forward to seeing you then.

Hawk-Eyes on Science

The Hawk-Eyes on Science outreach program continued its success this year. The program travelled around the State of Iowa and gave more than two dozen presentations to elementary, middle and high schools, youth groups and organizations, and science conventions. Demonstrations included topics such as electricity and magnetism and scientific tools of the trade.

To learn more about the Hawk-Eyes on Science outreach program, visit the web site at http://faraday.physics.uiowa.edu/hes/.

Café Scientifique of Iowa City

Other outreach activities included the Department’s continued involvement in the Café Scientifique of Iowa City program. Established in 2005 in Iowa City, the Café Scientifique program is a meeting where anyone can come to explore and debate the latest ideas in science, mathematics, medicine and technology. This past year, talks given at Café Scientifique included discussions on the center of the galaxy, physics of the Big Bang, glaucoma and genetics, how children are able to learn vocabulary so quickly, climate change, and wind energy. Meetings for Café Scientifique are held on the third Thursday of the month from September to May at the T Spoons restaurant located at the corner of Linn and Market streets (301 E. Market St.) in downtown Iowa City. For information on past and upcoming events of Café Scientifique, check out the web site at http://www.physics.uiowa.edu/cafe/.

The departmental outreach activities are supported in part by the University of Iowa’s Provost Office, College of Liberal Arts and Sciences, and by grants from the General Electric Corporation, the American Association of Physics Teachers (AAPT) Bauder Fund, and the American Physical Society (APS).

The Department is always looking for presenters and volunteers for outreach activities. If you are interested in participating, contact outreach coordinators Dale Stille (dale-stille@uiowa.edu) or Vincent Rodgers (vincent-rodgers@uiowa.edu).

Research Funding (continued)

magnetic, organic, and oxide structures and devices. Plasma physics, astronomy/astrophysics, and high energy physics are other areas that continue to do well in securing external funding. Not only does this increase in funding give faculty and staff the monies to conduct research, it also gives students, both graduates and undergraduates, opportunities to participate in these projects, further enhancing their educational experience and providing them with the tools necessary to succeed after college. Because of the Department’s excellent faculty and research programs, we look forward to continued advances in research and education alike.
Iowa Robotic Telescope Upgrade Completed

Thanks to $25,000 in funding provided by the UI College of Liberal Arts and Sciences, the project to upgrade the Iowa Robotic Telescope was completed in the fall of 2007. The Iowa Robotic Telescope is a state-of-the-art robotic telescope located near Sonora, Arizona at the Winer Observatory and is remotely controlled by faculty and students in Iowa City on the UI campus.

The University of Iowa pioneered the use of robotic telescopes for education. Since 1991, the telescope has been used by more than 8,000 graduate and undergraduate students. Prof. Robert Mutel, who maintains the Iowa Robotic Observatory (IRO), said the upgrades have greatly improved the imaging capabilities of the observatory. Improvements include a new wide-field 9 megapixel cooled CCD camera, additional narrow-band filters, and a redesigned, more accurate mount system. The gorgeous mosaic image shown here of the star-formation region NGC2244 was taken by undergraduate students in May 2008. During the fall semester 2008 the IRO plans to join two existing networks of robotic telescope arrays with world-wide coverage. This will allow UI students access to telescopes around the world, and will also provide access to the IRO for students at other schools and universities.

To read the latest information and view images taken with the telescope, go to the Iowa Robotic Observatory’s homepage, http://astro.physics.uiowa.edu/.

Hoover Museum Presents “Iowa’s Space Pioneer”

A special event was held on Feb. 1, 2008, at the Herbert Hoover Library and Museum in West Branch, Iowa, to celebrate the life and legacy of Prof. James A. Van Allen, and to commemorate the 50th anniversary of the launch of Explorer 1, which carried Van Allen’s Geiger tube that led to the discovery of Earth’s radiation belts. Approximately 200 people were in attendance, including Abigail Van Allen.

The event began with comments from Timothy Walch, Director of the Hoover Library and Museum, Dr. Meredith Hay, UI Vice President for Research, Prof. Don Gurnett, UI Department of Physics and Astronomy, and Prof. Abigail Foerstner, Northwestern University Medill School of Journalism.

Dr. Hay commented on the significance of James Van Allen’s role as a teacher, scientist, and leader during his more than fifty years at the University of Iowa. Prof. Gurnett described his experiences working with Van Allen in the early days of the space program, recounted the rapid growth of space research, and noted that many of Van Allen’s students went on to become leaders in the U.S. space program. Prof. Foerstner, who wrote and published a book entitled “James A. Van Allen: The First Eight Billion Miles,” summarized the early days of Van Allen’s life and the remarkable developments that led to his discovery of Earth’s radiation belts.

The program was followed by the opening of the Hoover Library and Museum featured exhibit “Iowa’s Space Explorer: James Van Allen” organized by Marcus Eckhardt, Hoover Museum Assistant Curator, with assistance from Kathy Kurth, Mike Fountain, and Bruce Randall from our department.

Open from January – March 2008, the Van Allen exhibit included models and spare components from various missions, including Explorers 1 and 3 (1957, 1958), “rockoons” (1950s), Mariners 4 and 5 (1960s), and Pioneers 10 and 11 (1970s), a full-sized spare Hawkeye satellite constructed at the University of Iowa (launched in 1974), a one-third scale model of a Jupiter C rocket, which was the rocket used to launch Explorer, and a timeline consisting of numerous photographs, notes, and letters.
Floods of 2008

As many of you know, the state of Iowa was devastated by flooding in June 2008, and the Iowa City and Cedar Rapids areas were no exceptions. The floods of this summer were at historic levels never seen before. Many homes and businesses were destroyed, and flooding also affected the University of Iowa campus by causing more than $230 million in damage to UI buildings and property.

The Iowa Advanced Technologies Laboratories (IATL) building, which sits on the banks of the Iowa River and houses several departmental faculty, staff and lab facilities, took on approximately two feet of water on the first floor. Those whose offices were located on the first floor were relocated to Van Allen Hall. The second floor and above have been re-opened and are back to normal daily activities. It is hoped that the first floor will be ready for occupancy by early 2009.

As the flood waters were rising, more and more streets and bridges were closed, forcing traffic to be funneled to only a handful of streets, making travel from one side of town to the other extremely difficult. With travel not recommended and nearly impossible, the UI campus was closed for one week, delaying the start of the summer session of classes. Not only were the streets being closed in Iowa City and Coralville, bridges and roads in the surrounding areas which crossed the Cedar and Iowa Rivers were closed as well, including the I-80 bridge in Cedar County and the I-380 bridge which crosses Lake McBride north of Iowa City. With roads closing around the Iowa City and Coralville area, it was nearly impossible to travel to or from the area.

Luckily quick thinking kept one research group from delays in its research. Members of the US CMS group headed by Prof. Yasar Onel had to transport quartz plates and read-out systems to Fermilab in Batavia, IL, which were crucial for the CMS experiment at CERN. Prof. Onel and his students were told they had two hours to pack up their materials and leave for Fermilab before the highways would close. After they packed their van with the CMS materials, two of Prof. Onel’s postdocs, Ugur Akgun and Taylan Yetkin, jumped in a van and drove seven hours to Fermilab, a trip that would normally have taken two and a half hours to drive. Once they arrived, the staff at Fermilab assisted them with housing, completed paperwork for their shipment of materials to CERN, and they were able to complete their work at the labs there. Thanks to the help provided by Fermilab, the group was able to make their deadline with collaborators at CERN, thus avoiding delays in test beam runs for the CMS experiment.

Flood waters also destroyed or severely damaged the homes and property of several departmental faculty, staff and students. Prof. Charles Newsom has been through this flood experience before in 1993. In 1993 he was working at CERN in Geneva, Switzerland and was unable to make it back in time to save his furniture from being destroyed. For him history repeated itself this summer as he would again be working at CERN when the flooding began in Iowa. However, this time he had enough forewarning that he flew back to Iowa to move items in his home to a higher level. He also spent a fair amount of time helping fill and stack sandbags. When the levees were overtopped, unfortunately, his home sustained a great deal of damage, and he is doing repairs this fall.
Large Hadron Collider Becomes Operational

After 14 years of planning and construction, the world’s largest particle accelerator, the Large Hadron Collider (LHC), located at the European Organization for Nuclear Research (CERN) in Geneva, Switzerland, finally became operational and successfully ran a beam of particles in each direction on September 10, 2008. Although most of the beam time with the LHC will be with protons, for a month or so of each year the beams will be of heavier particles (heavy ions) starting with lead nuclei.

The LHC is a 27-kilometer (16.78 miles) ring of superconducting magnets, located 100 meters underground spanning the border between Switzerland and France. By colliding two beams of subatomic particles traveling in opposite directions near the speed of light, the LHC will recreate conditions in the Universe following the Big Bang. Physicists will analyze the particles created from these collisions using detectors in experiments located at CERN. Departmental faculty and staff working in experimental high energy physics are involved with two of these detector experiments, ATLAS and CMS. Prof. Usha Mallik and her group are working on the ATLAS experiment, a Toroidal LHC ApparatuS. ATLAS is a seven-story tall particle detector with an enormous doughnut-shaped magnet system that will investigate a wide range of physics, including the search for Higgs boson, extra dimensions, and particles that may make up dark matter. It will observe phenomena involving highly massive particles not seen with older and lower-energy accelerators. Prof. Mallik and her group of scientists are currently at CERN involved in the commissioning of the ATLAS pixel detector, monitoring the pixel detector control system and the high-level trigger for minimum bias events, and working on the pixel data acquisition system in the coding of Digital Signal Processors (DSP).

Yasar Onel, Jane Nachtman, Charles Newsom and Ed Norbeck and their group members are working on the Compact Muon Solenoid (CMS) experiment. The CMS detector, like the ATLAS detector, will measure a complete set of physics parameters, providing an extremely important and complimentary set of data. Building two complimentary detectors is critical when exploring such important areas of our universe. The CMS detector is built around a huge solenoid magnet, and is unlike other giant detectors of the LHC experiment that were built underground. CMS is unique in that it was constructed completely above ground, and then lowered underground in 15 sections and reassembled.

One major contribution to the LHC by the UI CMS group is the HF-Forward Calorimetry particle detector, which was designed and developed here at Iowa. In November 2007, it was the first detector to go underground into the CMS collision hall. The group was also involved in the construction of the Zero Degree Calorimeter (ZDC). They are participating in several physics analyses, mainly searches for new physics such as supersymmetry, Higgs, Majorana neutrinos, and dijet resonances.

Yasar Onel is also the Photodetector Project Manager and Calorimetry Upgrade Coordinator for Super-LHC. Ed Norbeck is concentrating on the detectors closest to the beam line with particular emphasis on their use with heavy-ion collisions. Jane Nachtman is involved in monitoring of the trigger and hadronic calorimeter data, and also working on the calorimeter trigger upgrade.

Charles Newsom and his team have contributed heavily to the research and development of the highest tech pixel detector in the world. This “camera” is composed of approximately sixteen million independent elements that must be read forty million times a second. The detector is also unique in that it has to operate extremely close to the colliding beams in an ultra deadly radiation environment. Building such a detector has posed some daunting challenges and it has been very exciting to see it finally come to fruition. It is now installed in the heart of the CMS detector and is fully operational. The Iowa group is also in charge of the team which built the controls and monitoring system of the pixel detector and is leading the effort to upgrade and commission the fluorocarbon chiller which keeps everything cool.

LHC will provide researchers with a wealth of information leading to discoveries about the universe, understanding certain particle behavior, gaining insight into the origins of mass, learning more about dark matter, discovering hidden symmetries of the universe, and perhaps finding extra dimensions of space.
Alumni

Solomon Bililign (PhD 1991) is a Professor of Physics at North Carolina A&T State University and Director of the NOAA-ISET Center. Solomon stepped down as chair of the Physics Department (Jan 2007) to direct a new research center, the Interdisciplinary Environmental Scientific Technology Research Center. As the PI, he leads a group of thirty-one scientists, engineers, and meteorologists from eight institutions (University of Alaska Southeast, California State-Fresno, Minnesota State University, City University of New York, North Carolina State University, University of North Carolina at Pembroke, and Fisk University) on a $12.5 million award (for five years) from the National Oceanic and Atmospheric Administration. In addition to directing the center, Solomon is developing research in Cavity Ring Down Spectroscopy (CRD) and Negative Ion Proton Transfer Mass Spectrometry (NI-PTRMS) for atmospheric applications, and he works closely and travels to the NOAA-ESRL Lab in Boulder, Colorado. Solomon is married and the father of three boys (ages 13, 9 and 5) and a girl (age 7).

Yun-Wu Cheng (PhD 1996) is a Sr. Principal Engineer at Apache Design Solutions in San Jose, CA.

Anne Cherry (BS 2004) graduated in May from Duke University Medical School. She is currently interviewing for a residency position in Anesthesiology. Iowa City is on her (short) list of choices. Dr. James Hansen (PhD 1967) received the 2008 Common Wealth Award of Distinguished Service for Science. The award recognizes those who through their life’s work have advanced and enriched society. He is director of the NASA Goddard Institute for Space Sciences in New York City, NY and adjunct professor of Earth Sciences at Columbia University’s Earth Institute.

Michael Hotka (BA 1977) is a Programmer at Ball Aerospace Technologies Corp. in Boulder, CO.

Fred Olchowski (PhD 1998) is a Senior Scientist at Logos Technologies, Inc. in Arlington, VA.

In January 2008, Alan Tribble (PhD 1988) was awarded the American Institute of Aeronautics and Astronautics (AIAA) James A. Van Allen Space Environments Award for outstanding leadership, research, and scholarship in the emerging field of space environments and effects and their influence on spacecraft design and engineering in the tradition of Dr. James Van Allen. This award recognizes outstanding contributions to space and planetary environment knowledge and interactions as applied to the advancement of aeronautics and astronautics. Alan, an AIAA Associate Fellow, is currently an engineering manager for Rockwell Collins in Cedar Rapids, IA.

Deaths

Victor Corey (PhD 1942), died 5/20/2007
Andrew Deming (MS 1939), died 12/30/2007
Charles Dickerman (PhD 1957), died 12/26/2007
Robert Eisner (PhD 1954), died 11/16/2007
Dale W. Heikkinen (PhD 1965), died 3/19/2007
Philip McClean (MS 1967), died 10/11/2007
Larry Oberley (PhD 1974), died 4/21/2008

John Richardson (PhD 1946), died 3/25/2006
Alvin N. Rusk (MA 1957), died 3/25/2006
Irving Siegel (BA 1950), died 6/21/2006
Clifford Verwers (MA 1957), died 8/3/2006
Harold Way (PhD 1937), died 1/18/1995
Arthur Youmans (MS 1948), died 1/9/2004

In Memoriam: Abigail Van Allen

Abigail H. Van Allen passed away September 8, 2008 in Iowa City. She was 86.
She was born Abigail Fithian Halsey II on August 9, 1922 in Southampton, NY. Abigail attended schools in Cincinnati, OH and South Hadley, Mass. Following college, she worked at the Johns Hopkins Applied Physics Laboratory in Silver Springs, MD, where she met her future husband of 60 years, James A. Van Allen.
She was preceded in death by her husband, James, who died August 9, 2006. She is survived by five children and their families.
She was very involved in the Iowa City and University of Iowa communities and will be greatly missed.

Be part of the next newsletter!

Send us your latest alumni news by submitting it on the web at www.physics.uiowa.edu/alumni/ and click on the “Alumni Update Form” link.

We look forward to hearing from you soon!

Your gift to Physics and Astronomy benefits education and research!

To make a contribution, go to the Department’s online gift web site at
http://www.givetoiowa.org/physics

Your gifts are greatly appreciated!
Students Receiving Degrees

Undergraduate

Thomas Brantseg, B.S. physics & astronomy
Julie Brasefield, B.S. applied physics
Matthew Eagles, B.S. applied physics
Thomas Grubb, B.S. physics
John Meyer, B.S. physics
Nathan Munsterman, B.A. physics
Julia Nelson, B.S. physics & astronomy
Agatha Raup, B.S. physics & astronomy
Mark Smalley, B.S. physics & astronomy
James Wetzel, B.S. physics
Catherine Whiting, B.S. physics & astronomy

Graduate

Aaron Breneman, Ph.D. astrophysics (postdoc, space plasma physics, University of Minnesota)
Alexander Bulmahn, M.S. high energy physics (Ph.D. program, Univ. of Iowa)
Xueong Chai, Ph.D. high energy physics
Andrew Kopf, M.S. space physics (Ph.D. program, University of Iowa)
Philip Kopp, M.S. physics
Xiaolong Liu, M.S. high energy physics (Ph.D. program, University of Iowa)
Yuzhi Liu, M.S. high energy physics (Ph.D. program, University of Iowa)
Tatsuki Matsui, Ph.D. space physics
Allison Mercer, M.S. astronomy (Ph.D. program, University of Iowa)
Tho Nguyen, M.S. condensed matter physics (joint postdoc for Center for Nanophase Materials Science, Oak Ridge National Lab, and Materials Science, University of Tennessee)
Kevin Nielson, M.S. condensed matter physics (Ph.D. program, Univ. of Iowa)
Nathan Powers, Ph.D. atomic physics

(continued on page 11)
Staff Achievements and Recognition

This past year departmental staff were recognized for their hard work and service to the University. The College of Liberal Arts and Sciences gave out the following staff awards:

**Mary Louise Kelley Staff Excellence**
Heather Mineart

**Community Leadership and Service**
Aaron Votroubek

The following received longevity awards for their years of continuous service to the University:

- Larry Granroth – 25 years
- Jean Hospodarsky – 25 years
- Richard Huff – 30 years
- Donald Kirchner – 30 years
- Joseph Loria – 25 years
- Jolene Pickett – 25 years
- William Robison – 30 years

Congratulations to all our staff for their work excellence and commitment.

**Dale Stille Appointed to AAPT Committee**

Dale Stille, Instructional Resource Specialist for the University of Iowa Department of Physics and Astronomy, has been appointed to the Committee on Apparatus of the American Association of Physics Teachers (AAPT). This national leadership appointment officially started in January of 2008 and will end at the 2011 AAPT winter meeting. Dale will assume chairmanship of this committee during the 2009 calendar year.

Dale is also still heavily involved with the Physics Instructional Resource Associations (PIRA) Lecture Demonstration Workshop as its co-leader along with Sam Sampere of Syracuse University. This two day workshop covers the 200 basic demonstrations one would need for a course of physics and astronomy instruction going from Mechanics to Modern Physics or Astronomy.

**Department Hires New Machinist**

This past year the department hired a new full-time machinist for the Machine Shop. Bill Baum, an Iowa City native, previously worked at Oral B Laboratories before coming to Physics and Astronomy in April 2008. He has over 30 years experience as a machinist and worked in various shops in Florida for 20 years before moving back to Iowa City.

**Staff Changes**

The following people have joined the department: Bill Baum, Kwangzoo Chung, Tae Jeong Kim, Roxane Mitten, Ronan Modolo, Jennifer Pawlowski, Jim Phillips, Thomas Potts, Carol Preston, Steve Remington, Ted Schultz, Steven (Jinhu) Tan, Michael Thornburg, and Kai Yi.

Those who left this past year include Georg Fischer, Jill Hartz, Brian Kurt, Tim LaFave, Ronan Modolo, Vadim Roytershteyn, and Shahram Seyedmohammadi.

We wish the best of luck to Juliana Dowell, who retired after 16 years with the department.

**In Memoriam: Alice Shank**

Long-time former employee Alice Shank passed away August 17, 2008. She was 68.

Alice worked in the department for 22 years before retiring in 1999. During that time, Alice mastered a mathematical typesetting program called TeX and became an expert in typing scientific papers, books and theses. She took great pride in her work and she did everything with perfection. Dr. James Van Allen stated it was a catastrophe when she retired. Alice will be greatly missed by all those who knew her.

**Students Receiving Degrees (continued)**

**Graduate**

- Zachary Prieskorn, M.S. astronomy (Ph.D. program, University of Iowa)
- James Rybicki, M.S. condensed matter physics (Ph.D. program, University of Iowa)
- Levent Sensoy, M.S. condensed matter physics (Ph.D. program, University of Iowa)
- Yugang Sheng, M.S., Ph.D. condensed matter physics (manufacturing engineer, Seagate Technology, Bloomington, MN)
- Kory Stiffler, M.S. high energy physics (Ph.D. program, University of Iowa)
- Chao Tan, M.S. condensed matter physics (Ph.D. program, University of Iowa)
- Jeffery Yager, M.S. condensed matter physics (Ph.D. program, University of Iowa)
Alumni Update Form

Keep us posted on your latest accomplishments. To update our mailing list and include your news item in the next newsletter, complete the form below and return it to Aaron Votroubek, Department of Physics and Astronomy, 211 Van Allen Hall, The University of Iowa, Iowa City, IA 52242-1479. Or submit your information by completing the alumni update form online at www.physics.uiowa.edu/alumni/alumni-update.html. We look forward to hearing from you soon!

Name
First
Middle
Last

Home Address

City
State
Zip

Employer
Title

Work Address
City
State
Zip

Home Phone
Email

Year Graduated
Degree

Career Accomplishments and Other Information

☐ Yes, I would be willing to serve as a mentor for a graduate or undergraduate student.