newly created position of

Sarah Phillips was hired into a

her position in January 2007,

CHAIRMAN'S WELCOME . . . *by Roger McNeil*

Welcome to our Spring 2007 newsletter. There have been lots of changes since our last newsletter.

This has been a busy year for recruiting of new faculty members to our department. In the summer of 2006, we hired two full time instructors, Dubravka Rupnik and Iftikhar Ahmad. Also in spring 2007, Dr. Polad Shikhaliev came to LSU from the University of California at Irvine. His research is in the area of medical imaging physics. The department currently has three faculty searches taking place in the areas of experimental condensed matter physics, theoretical condensed matter physics and experimental nuclear physics. We hope soon to hire outstanding faculty members to strengthen these research areas to support the education and training of students. We have had two faculty departures since our last newsletter. Paul Kirk retired in August 2006 after 35 years with the department, and Robert Svoboda resigned in November 2006 to take a joint position with the University of California at Davis and Lawrence Livermore National Laboratory (LLNL). You'll recall from our last newsletter that Dr. Svoboda was on leave at LLNL after his house in New Orleans was severely damaged by Hurricane Katrina. We hope to begin a new round of faculty searches in the fall of 2007.

We had a great year with our students. Since our last newsletter, we graduated 18 B.S. degrees, 4 M.S. degrees in Medical Physics/Health Physics and 3 Ph.D. degrees. A full listing of our graduates is included in this newsletter edition. In February 2007, the College of Basic Sciences held its annual scholarship breakfast where the first two Greg Hussey Scholarships for Undergraduate Physics were awarded to Brendan Watson (2006) and Nicholas Van Meter (2007). Our students continue to grow in number with about 100 undergraduate majors and over 80 graduate students. This is an active time of year for recruiting of students and we are continuing our efforts to recruit outstanding students into both our undergraduate and graduate programs

There were two great news items this past November in our medical physics program: The program was reviewed by the Commission on Accreditation of Medical Physics Education Programs and then received word that our program has been accreditdits(h)23 TJT0.0065 Tc0.085 Tw[(A)15.4(l)16.5(u)28.1(m)11.

Magnetic Protection

Reprinted with permission from http://focus.aps.org/story/v17/st12
Physical Review Focus http:[illegible]

Fermi National Accelerator Lab

Wired for magnetism. The superconductivity of wires like these breaks down when the magnetic field gets too high, which limits the strength of the field these coils can generate. A newly discovered effect increases the breakdown field by ten times, although so far it only works in a nanometers-thick, layered

is the recipient of the . Dr. Weiss is Professor Emeritus at Massachusetts Institute of Technology (MIT) and Adjunct Professor at LSU. The Einstein Prize recognizes outstanding accomplishments in the field of gravitational physics and is awarded biennially in odd-numbered years.

, Adjunct Associate Professor was named .

Member, National Academy of Sciences, and
Fritz London Prize recipient.

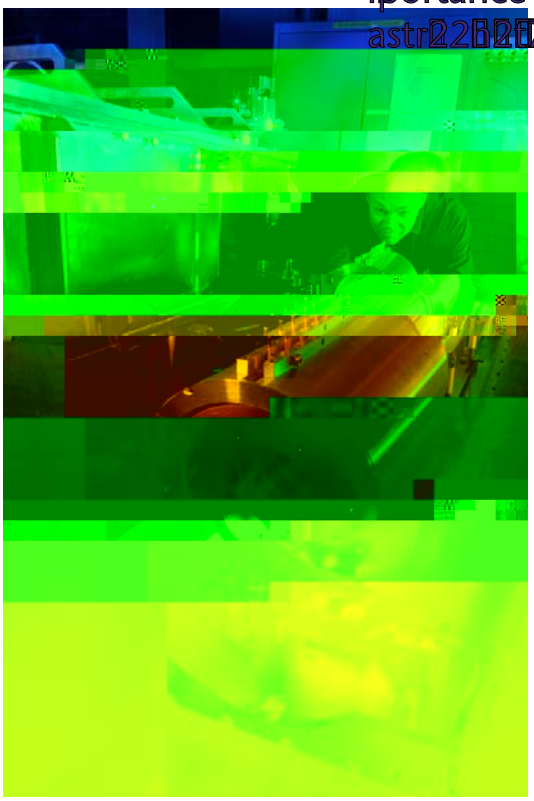
Wednesday, February 7, 2007 - 5:00 PM
109 Nicholson Hall
(A reception at the LSU Faculty Club followed the lecture.)

One of the most beautiful aspects of physics is how phenomena in widely different systems are described by the same mathematical formulation. In electromagnetism, the Casimir force is due to the confinement of zero-point electromagnetic fluctuations between two conducting plates a finite distance apart. In a completely analogous way, the confinement of critical fluctuation in an adsorbed film leads a thickness dependence correction to the free energy of the film and, therefore a critical Casimir force between the interfaces of the film. The existence of the critical Casimir force was confirmed by measuring the thickness of He-4 film adsorbed on solid substrates as the system is brought through the superfluid, or lambda, transition. A thinning of the adsorbed film driven by the attractive force between the liquid-vapor and the liquid-copper interface is found (1, 2). A repulsive critical Casimir force near the He-3-He-4 tricritical point was also found (3).

2007 Spr

MTOF-MS

Professor Emeritus Edward Ganz. Note the gold-plated electrostatic lens element. When MTOF-MS is operational, experiments of great importance to nuclear structure and nuclear astrophysics may be conducted.



Faculty & Staff Focus, Honors & Awards, Research

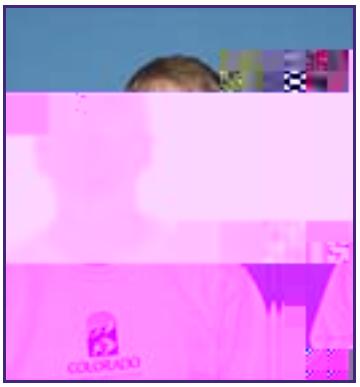
Sudbury Neutrino Observatory Team Wins First John C. Polanyi Prize

LSU researchers among those honored

- - LSU NEWS, November 16, 2006, 11:56 AM

Thomas Kutter

Jason Goon



Kevin McBryde

Research scientists at the Sudbury Neutrino Observatory, or SNO, gathered yesterday to receive the first John C. Polanyi prize of the Natural Sciences and Engineering Research Council of Canada, or NSERC. Several LSU researchers are among those being honored.

The award, honoring John Polanyi, the 1986 Nobel Laureate in chemistry, is given annually to an individual or team whose research, conducted in Canada, has led to a recent outstanding advance in an NSERC-supported field of the natural sciences or engineering. The SNO collaboration team has used the observatory, a unique neutrino telescope located approximately one and a half miles underground near Sudbury, Ontario, for groundbreaking research that has significantly added to the understanding of the universe.

LSU has been involved with SNO since the fall of 2004, when Thomas Kutter came to the campus as an assistant professor of physics and astronomy. He

(Contd. from Page 6)

very fundamental level. The observations also resolved the 30-year-old "Solar Neutrino Problem," a large discrepancy between earlier measurements by other laboratories not sensitive to all three types

For more information about SNO, please visit http://www.sno.phy.queensu.ca/ or contact Thomas Kutter at kutter@phys.lsu.edu or 225-578-8310.

by Ashley Berthelot, LSU Media Relations

Our Physics and Astronomy Department remains one of the leadin.7(6.4)4 6.2(l)17.7L ofliasrtant retronolc4(h)16.4(e)5. here. However, many are inter-departmental and multi-institutional; a strong testament of our department's

WELCOME . . . New Faculty - Postdoctoral Researchers - Staff - Graduate Students

• FACULTY •

Iftikhar Ahmad, Instructor
Dubravka Rupnik, Instructor
Polad Shikhaliev, Assistant Professor, Med.u.PuaP FACorDORA(n)16 1 10 Tc20(R)17(S)17(A(n)168)-8 a0.025 4T0 1 Tc(u

Information Technology Services (ITS) has been in the process of providing full coverage wireless access to the entire campus . . . building by building.

Authentication is obtained via PAWS accounts. However , guests to the Department of Physics and

STUDENT HONORS & AWARDS

College of Basic Sciences Awards
Annual Scholarships

Faculty & Staff Focus, General Information, Research, Science & Technology

Endowed Chair Supports Cancer Research Through LSU and Mary Bird Perkins Cancer Center Partnership

Dr. Charles M. Smith Chair of Medical Physics Established

- - LSU NEWS, November 20, 2006, 11:24 AM

physicia

research
that imp
cancer.

For more information about Mary Bird Perkins Canc
Center and the Medical Physics and Health Phy
Program at LSU, please visit www.marybird.org
www.phys.lsu.edu and click on "graduate programs

by Ashley Berthelot, LSU Media Relations

RETIREMENTS

Retirement message: “Knowing is not enough”

Paul Kirk

RETIREMENTS

E. Allen Young, Manager of the Physics and Astronomy Machine Shop, retired after 35 years of service to the Department and the University.

Allen, a Louisiana native, set upon a career in machine work through 4 years of formal education in that area. He then joined the U.S. Army where for 8 years he was a specialist in the repair and maintenance of military equipment. He was chosen in 1959 as *Most Outstanding NCO*. After leaving the military, he moved into a shop that produced high performance racing engines. Allen then moved into R&D, becoming a member of the NASA Research and Development team (as a Boeing Aircraft employee) working on the Apollo Mission. He became Foreman of a 125-person

CONGRATULATIONS TO OUR GRADUATES!

SPRING 2006

Evan John Anzalone (B.S.)
Hallie Elizabeth Baer (B.S.)
Daniel Cliffor Cox (B.S.)
Travis Joh Halphen (B.S.)
Adam Lee Hawley (B.S.)
Shayna Lynn Loebig (B.S.)
Travis Clay Matthews (B.S.)
Jack Rivers McGee (B.S.)
Hans Ludwig Helo (B.S.)
Gregory Joseph Merchan (B.S.)

stronomy will be used to enhance our teaching program and facilitate scientific