

Ultracold Gas Mimics Ultrahot Plasma Physicists Examine Free-Flowing Perfect Liquids Linked by Strings

In a February 15 news release, Duke University highlighted connections that can be made between the behavior of ultra-cold matter and the extremely hot, perfect liquid formed at BNL's Relativistic Heavy Ion Collider. One surprise is that methods of string theory can be used to describe both conditions. The topic was the focus of a physics symposium sponsored by BNL at the annual meeting of the American Association for the Advancement of Science on February 15, 2009, in Chicago. Titled *Quest for the Perfect Liquid: Connections Between Heavy*

Ions, String Theory, and Cold Atoms, the symposium was organized by BNL's Peter Steinberg with Bill Zajc of Columbia University. The lively symposium, which attracted great interest, was moderated by Steinberg, who reported on the event in the Monday Memo of 2/23/09 and in his blog (see the Sunday, February 22 entry at <http://entropybound.blogspot.com/>). To read the Duke news release in full, see the BNL web newsroom, February 15, http://www.bnl.gov/bnlweb/pubaf/pr/PR_display.asp?prID=914. Excerpts from the news release follow.

Several years after Duke University researchers announced spectacular behavior of a low density ultracold gas cloud, researchers at BNL observed strikingly similar properties in a very hot and dense plasma fluid created to simulate conditions when the universe was about one millionth of a second old.

The plasma was formed at a colossal 2 million degrees kelvin within BNL's Relativistic Heavy Ion Collider (RHIC). The Duke gas cloud was cooled to 0.1 millionths of a degree kelvin using a laser light trap and magnetic field. But both drastically different systems expanded something like exploding cigars. And their constituent matter also showed signs of flowing almost free of any

“The cigar-shaped plasma looked very much like the cigar-shaped cloud in our trap.”

viscosity a nearly perfect fluid, said Duke physics professor John Thomas.

Thomas reported on his lab's experiments with fermion gases and their possible relevance to RHIC's quark-gluon plasma research as well as to string theory during a February 15 symposium organized by BNL during the American Association of Science's 2009 annual meeting, in Chicago.

In a November 2002 report in the research journal *Science*, Thomas and co-researchers described what happened after they confined a cloud of lithium-6 atoms and cooled them to 100 billionths of a degree above absolute zero. When the ultracooled, cigar-shaped cloud was then released from the trap, it expanded anisotropically, meaning fastest along the direction that was initially narrow, he recalled.

RHIC is designed to smash gold atoms together near the speed of light. Its goal is to create energies colossal enough to break apart their nuclei into an ultrahot gas of the most fundamental particles, naked quarks and gluons. Theoreticians believe such

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Nobel Laureate Paul Nurse To Give Pegram Lectures, 3/18 Controlling the Cell Cycle & The Great Ideas of Biology

Nobel Laureate Paul Nurse, President of Rockefeller University, will give two George B. Pegram Lectures on Wednesday, March 18, at 11 a.m. and 4 p.m. in Berkner Hall. Inaugurated in 1959, the Pegram lectures bring distinguished scholars to BNL to speak on topics of both scientific and general interest. Sponsored by Brookhaven Science Associates, the lectures are free and open to the public. Visitors to the Lab age 16 and over must bring a photo ID.

In the 11 a.m. lecture, titled *Controlling the Cell Cycle*, Nurse will explain that growth and reproduction of all living organisms are dependent on the cell cycle, the process that leads to cell division. Uncontrolled division of cells can lead to disease, especially cancer. Two phases in the cell cycle the synthesis phase, the stage at which DNA synthesis or replication occurs; and mitosis, a process that results in the production of two daughter cells from a single parent cell are controlled by enzymes called cyclin-dependent kinases, or CDKs. Checkpoint controls working through the CDKs



Nobel Laureate Paul Nurse, President of Rockefeller University

block cell-cycle progression if cells are too small or DNA is damaged or incompletely replicated. Nurse will discuss his recent lab results on these cell-cycle controls.

In the 4 p.m. lecture, *The Great Ideas of Biology*, Nurse will discuss three important theories that have influenced the course of biology: gene theory, the proposal that the cell is the fundamental unit of all life, and Charles Darwin's theory of evolution by natural

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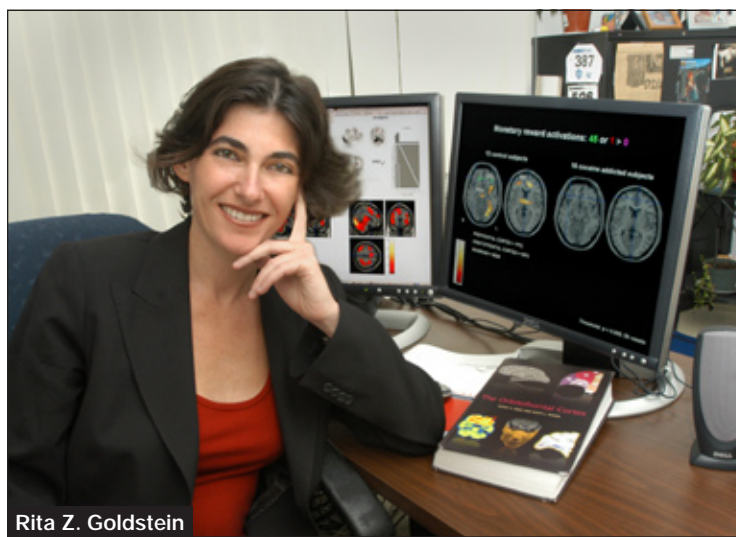
Eight Brookhaven Scientists Are Granted Tenure

Brookhaven Science Associates (BSA) granted tenure effective December 1, 2008, to eight Brookhaven scientists. They are Elaine DiMasi, National Synchrotron Light Source; Rita Z. Goldstein, Medical Department; Yangang Liu, Environmental Sciences Department; Hong Ma, Physics Department; Cedomir Petrovic, Condensed Matter Physics and Materials Science Department (CMPMS); Triveni Rao, Instrumentation Division; Tonica Valla, CMPMS; and Paul Vaska, Medical. Tenure appointments are granted by action of the BSA Board after a rigorous selection procedure overseen by the BSA Science & Technology Steering Committee. In making tenure decisions, the BSA Board is advised by members of the Brookhaven Council, an elected body that advises the Director on matters affecting the scientific staff. The Bulletin is featuring the newly tenured scientists in alphabetical order: Elaine DiMasi was profiled in the Bulletin of February 27; below are summarized the contributions of Goldstein and Liu.

Rita Z. Goldstein

Scientist Rita Z. Goldstein, Medical Department, has been awarded tenure for her outstanding contributions to the field of neuropsychology and the study of drug addiction. Goldstein is internationally recognized for her use of innovative methods to study the brain and behavior when addicted to cocaine.

Goldstein's research will facilitate the development of novel modalities that will treat drug addiction more effec-



Rita Z. Goldstein

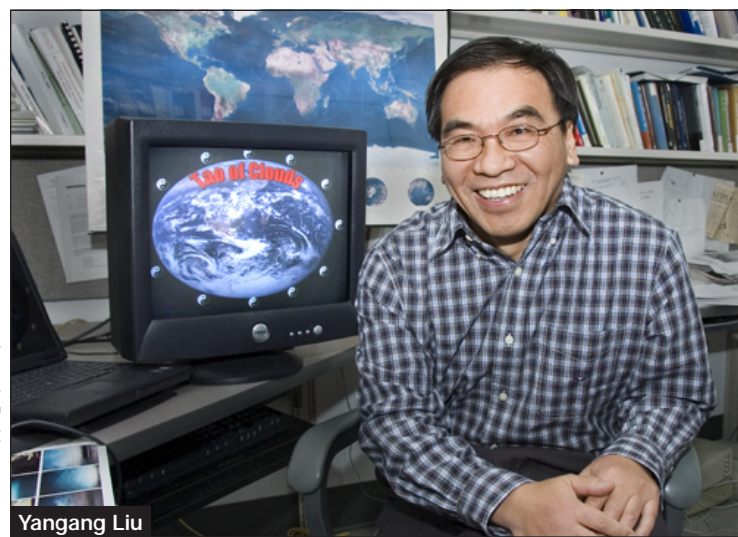
tively, stated Gene-Jack Wang, a senior scientist and chair of Brookhaven's Medical Department. For a young researcher in psychology, where a lot is published and far less is cited, her citation record is remarkable.

In 2002, Goldstein co-authored a paper published by the *American Journal of Psychiatry* that has been cited nearly 350 times. This paper introduced I-RISA, the Impaired Response Inhibition and Salience Attribution model, which suggests that the brain's pre-frontal cortex overvalues drug-related stimuli while undervaluing non-drug-related stimuli in those addicted to drugs. This compromise is associated with an inability to control one's own behavior and may lead to further addiction symptoms like compulsive drug use even when the drug experience is no longer perceived as pleasurable, or if continued use could

have disastrous consequences.

Currently, Goldstein is collaborating with others in Brookhaven's Life Sciences Directorate using positron emission tomography and functional magnetic resonance imaging to understand how dopamine and other neurotransmitters affect the pre-frontal cortex's role in the I-RISA syndrome in drug addiction.

Goldstein earned bachelor degrees in psychology and French from Israel's Tel Aviv University in 1992. She earned a Ph.D. in Health Clinical Psychology from the University of Miami, Florida, in 1999 and worked as a post-doc at Stony Brook University and BNL, 1999-2002. In 2001, Goldstein received a New York State Clinical Psychology License, becoming an assistant scientist in the Medical Department in 2002. She became an associate scientist in 2004 and was appointed scientist in 2006.



Yangang Liu

Yangang Liu

Yangang Liu of the Environmental Sciences Department (ESD) has been granted tenure for his substantial achievements in the field of cloud physics. Liu is internationally recognized as an expert in cloud physics, focusing on understanding the effects of aerosols on clouds as it relates to climate change.

Liu is known as one of the outstanding younger contributors both nationally and internationally in the area of cloud microphysics and optics, noted Peter Daum, ESD Acting Chair. He is highly productive and central to the scientific and programmatic growth of atmospheric science at BNL and beyond.

Rather than using traditional empirical methods to explain autoconversion, a naturally occurring process in which cloud droplets trans-

form into rain droplets, Liu made significant contributions to the development of a more accurate model based on an understanding of the physics of the process. In work focusing on aerosols and their effects on clouds relating to water-droplet size distributions, the Liu-Daum dispersion-effect finding is recognized to be of key importance in reducing the uncertainty of climate forcing over the industrial period and in understanding climate change.

In addition to his research accomplishments, Liu has contributed substantially to BNL's support of major DOE research initiatives such as the Atmospheric Radiation Measurement (ARM) effort. In this program, a collaboration of scientists works to improve the treatment of cloud and radiation physics in global climate models. As an Associate Chief Scientist, Liu

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Joseph Rubino 02090908

Roger Stoutenburg 02080207

CALENDAR

OF LABORATORY EVENTS

The BERA Store in Berkner Hall is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347, or Christine Carter, Ext. 2873.

Additional information for Hospitality Committee events may be found at the Lollipop House and the laundry in the apartment area.

The Recreation Building #317 (Rec. Hall) is located in the apartment area.

Contact names are provided for most events for more information.

Events marked with an asterisk (*) have an accompanying story in this week's Bulletin.

REGULARLY

Weekdays: Free English for Speakers Of Other Languages Classes

Beginner, Intermediate, Adv. classes, various times. All welcome. Learn English, make friends. See www.bnl.gov/esol/schedule.html for schedule. Jen Lynch, Ext. 4894

Mondays: BNL Social & Cultural Club
Noon 1 p.m., Brookhaven Center, South Room, free beginners dance lessons. Rudy Alforque, Ext. 4733, alforque@bnl.gov

Mondays & Wednesdays: Pilates
12:15 1:15 p.m. Mons.; 5:15 6:15 p.m. Mon. & Wed. Rec. Hall. \$65/once/wk., Ext. 5090

Mondays & Thursdays: Kickboxing
\$5 per class. Noon 1 p.m. in the gym. Registration is required. Ext. 8481

Mon., Thurs., & Fri.: Tai Chi
Noon 1 p.m., B Haven Cntr N. Rm. Adam Rusek, Ext. 5830, rusek@bnl.gov

Tuesdays: Hospitality Coffee
10:30 a.m. noon, Rec. Hall lounge. Restarts 9/9. All welcome. Ext. 5090

Tuesdays: BNL Music Club
Noon, B Haven Center, N. Room. Come hear live music. Joe Vignola, Ext. 3846

Tuesdays: Knitting Class
2 p.m. Rec. Hall. All levels of skill. Ext. 5090 for information

Tuesdays: Jiu Jitsu
6:30 7:30 p.m. Gym. All ages, 6 yrs. to adult. \$10/class, pay as you go. Tom Baldwin, Bldg. 452, Ext. 4556

Tuesdays: Toastmasters
3 monthly meetings: 2nd Tuesday: Noon, Berkner, Rm. D. 1st & 3rd Tuesdays, 5:30 p.m., Bldg. 463, Rm 160. Guests, visitors welcome. www.bnl.gov/bera/activities/toastmasters/

Tue., Wed. & Thurs.: Rec Hall Activities
5:30 9:30 p.m. General activities, TV, ping pong, chess, games, socializing. Christine Carter, Ext. 5090

Tuesday & Thursday: Aerobic Fitness
5:15 p.m., Rec. Hall. 10 classes for \$40 or \$5 per class. Pat Flood, Ext. 7866, ood@bnl.gov

Tuesday & Thursday: Aqua Aerobics
5:30 6:30 p.m., Pool.

Tuesday & Thursday: Jazzercise
Noon 1 p.m. Rec. Hall. 8-wk session, \$90 2x/wk. Holbrook & Wading River locations too. Mail chk to Recreation Office, Bldg. 400.

Wednesdays: On-Site Play Group
10 a.m. noon. Rec. Hall. Infant/toddler drop-in event. Parents meet while children play. Restarts 9/10. Petra Adams, 821-9238

Wednesdays: Ballroom Dance Class
B Haven Center, N. Ballroom. Instructor: Giny Rae. New series starts 2/25. Three 1-hr. classes, starting at 5:15 p.m. Ext. 3845

Wednesdays: Yoga
Noon 1 p.m., B Haven Center. Free. Ila Campbell, Ext. 2206, ila@bnl.gov

1st Wednesday of month: LabVIEW
1:30 3 p.m., Bldg. 515, 2nd . Seminar Rm. Free technical assistance from LabVIEW consultants. Ext. 5304, or Terry Stratoudakis, (347) 228-7379

Thursdays: BNL Cycletrons Club
Noon 1 p.m., First Thurs. of month. Berkner, Rm. D. Toni Hoffman, Ext. 5257

Thursdays: Reiki Healing Class
Noon 1 p.m., Call for location. Nicole Bernholz, Ext. 2027

Fridays: Family Swim Night
5 8 p.m. BNL Pool. \$5 per family

Fridays: Family Gym Night
5 8 p.m. Family gym activities. Free

Fridays: BNL Social & Cultural Club
Noon 1 p.m., B Haven Center, S. Room, free beginners dance lessons. 7-11:30 p.m. N. Ballroom, Dance Social, workshops. Rudy Alforque, Ext. 4733, alforque@bnl.gov

CIGNA Representative

A CIGNA Healthcare representative is available as needed in Human Resources, Bldg. 400, or by phone to assist with claims issues you have been unable to resolve yourself through CIGNA's Customer Service number (1-800-CIGNA24). Mary Beth Kivlen will be available by appointment only. You will need to provide all pertinent documentation. To schedule, call the Benefits Office, Ext. 5126.

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a quark-gluon plasma has not existed since a split-second after the Big Bang.

As the results of those experiments began to surface in April 2005, RHIC experimenters found that the cigar-shaped plasma looked very much like the cigar-shaped cloud in our trap, Thomas said. That cloud also expanded anisotropically in keeping with what theorists in the field had predicted. Researchers also found that this plasma behaved as an almost-perfect fluid. Meanwhile, further work by Thomas's group has documented almost viscosity-free fluid states in its cold fermion gases.

In addition, researchers

involved in string theory also approached Thomas about similarities between his fermion findings and the predicted behavior of what those theorists call strongly interacting quantum fields, he said. It's not clear, though, that the prediction has any relevance to Fermi atoms colliding in a trap. However, the closeness of the initial cold gas measurements to the predictions is striking.

Elements of string theory aim at bridging the gap between quantum mechanics and general relativity by proposing that the true fundamental particles are actually ultra-tiny strings vibrating in multiple dimensions.

Two Other BNL Symposia At AAAS

Also at AAAS, BNL sponsored Basic Research for Global Energy Security: A Call to Action, a discussion of innovations in producing, converting, transmitting, storing, and using energy. The presentation, moderated by BNL's James Misewich, described how basic research particularly in the emerging field of nanoscience is enabling advances in catalysis, superconductivity, artificial photosynthesis, and other areas. Misewich reported on the event in the Monday Memo of 3/9/2009 at <http://intranet.bnl.gov/memo/mm.asp?IssueId=140&StoryId=3>.

Another symposium linked with BNL, Casting New Light on Ancient Secrets, presented insights into the capabilities of the many light source research facilities located around the world to use non-destructive x-ray techniques to uncover new information about historical artifacts. This symposium, moderated by Murray Gibson, Argonne National Laboratory, was described by one of the speakers, BNL's Peter Sidons, in the Monday Memo of 2/23/09, <http://intranet.bnl.gov/memo/mm.asp?IssueId=139&StoryId=3>.

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selection, which in 2009 is 150 years old. Nurse notes that these ideas merge because the way cells reproduce provides the conditions by which natural selection takes place, thus allowing living organisms to evolve. Another theory that Nurse will discuss is the organization of chemistry within the cell, which provides explanations for life's phenomena. Also, he will explain a new idea that describes the nature of biological self-organization by which living cells and organisms process information and acquire specific forms.

Nurse earned his Ph.D. in biology at the University of East Anglia. After holding fellowships at the University of Edinburgh and the University of Sussex, Nurse headed the Cell Cycle Control Laboratory at the Imperial Cancer Research Fund (ICRF) in London, from 1984 to 1987. He became Iveagh Professor of Microbiology at the University of Oxford from 1987 to

1991, and Napier Research Professor of the Royal Society, from 1991 to 1993. He returned to ICRF in 1993, where he became director-general in 1996. In 2003, he was named President of Rockefeller University.

Paul Nurse shared the 2001 Nobel Prize in Physiology or Medicine, along with two other scientists, for identifying CDK as the key regulator molecule controlling the process by which cells make copies of themselves. This discovery is important for understanding the development and growth of cancer. In addition to the Nobel Prize, Nurse has won the Albert Lasker Award for Basic Medical Research, as well as numerous other awards and medals. He is a fellow of the Royal Society and a foreign associate of the National Academy of Sciences in the U.S. In 1999, he was honored with knighthood in Great Britain for services to cancer research and cell biology.

Diane Greenberg

'Investment Strategy in Current Economy'

TIAA-CREF Seminar, 3/25

On Wednesday, March 25, from noon to 1 p.m. in the Hamilton Seminar Room, Bldg. 555, a TIAA-CREF representative will conduct a seminar on Developing an Investment Strategy followed by a Q&A session. Topics to be covered will include the current state of the economy, what can be done with investments, defining goals and time horizons, evaluating risks, selecting the appropriate investments, diversifying holdings, and maintaining a portfolio.

Brookhaven Retired Employees Association Talk, 4/8
Retirees Staying on Track in Volatile Market

Brookhaven Retired Employees Association (BREA) is sponsoring a talk on Retirees Staying on Track in a Volatile Market, at noon on Wednesday, April 8, in the Hamilton Seminar Room, Bldg. 555. Thomas Kelly, ChFC, of TIAA-CREF will give the talk, which will focus on the importance of asset allocation through retirement and the impact of the current economic outlook. All are welcome.

In Memoriam: Robert Metz, Senior

Robert Metz, a rigger for the Site Service Division (SSD), died on February 7, 2009. He was 60.

Metz's supervisor, Alex Korol of SSD, said, Bob was a beloved coworker, dedicated to his family and known, here on site, as The Flower Man. Each of the four seasons would bring a visit from Bob and his grey step van, always filled to the brim with a variety of flowers, from mums and marigolds to poinsettias and pansies. He will truly be missed, not only by his friends at BNL, but by the whole community.

Metz first joined BNL in the Plant Engineering Division on August 28, 1985, as a temporary custodian, and he was named as a regular custodian on November 12, 1985. During the years that followed, he served the Lab in many ways, helping out as a laborer, a building and grounds utility worker, and a lamp cleaner. On February 24, 1992, he became a driver. Two years later, in 1994, he changed jobs to become a temporary riggers assistant. In 1997, he became a regular riggers assistant, and was promoted to his position as a rigger on March 1, 1999.

Metz had many friends at the Lab: one, Joseph DeVoe of the Maintenance & Fabrication Services Division, wrote a poem, Flowers and Peace in his memory. Part of the poem reads:

... Most great things are shortlived
Even today is only a moment
Like many moments in time
Everyday friends will come and go
As their souls move about us,
Leaving a moment of peace, but moving on, looking forward
And now watching over us all . . .
... As flowers and peace overwhelm us
There is a respect to be shown,
For we come from the earth, and the earth takes us back
As someone new is born, and a new flower blooms,
We can be at peace.

The poem may be read in full in the Obituary page at www.bnl.gov/bnlweb/pubaf/bulletin/obit/.

A resident of Mastic Beach, Robert Metz is survived by his wife Frances; his daughter Lisa Metz, Site Services Division; his son Robert Metz Jr., Environmental Protection Division, and, remembered as Pop Pop, by his grandchildren Little Bobby and David. Liz Seubert

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functions as the interface between ARM's Chief Scientist and the Aerosol Working Group.

Liu attended Nanjing University of Information Science and Technology in China where he studied atmospheric sciences and earned a bachelor of science degree in 1983 and a master's degree in 1989. He earned a

Ph.D. in atmospheric sciences from the Desert Research Institute of the University of Nevada-Reno in 1998.

That same year, Liu joined Brookhaven as a research associate. He was named an assistant scientist in 2001 and an associate scientist in 2003. In 2006, he was promoted to scientist.

Joe Gettler

Reporting Abnormal Events/Conditions Fast Is Vital to Complying With Two-Hour Limit

Certain abnormal events or conditions that may happen on the BNL site must be reported to DOE within two hours of their discovery. BNL staff members or guests should therefore know that they are required to report to their supervisor any abnormal events or conditions that they perceive may:

- Endanger the health and safety of staff or the public
- Have an adverse effect on the environment
- Seriously impact the operations and intended purpose of BNL facilities
- Result in loss or damage of property
- Adversely affect national security or the security interest of DOE or BNL.

If an employee or Lab visitor or guest discovers one of these events or conditions, it is vital that he or she immediately notify their supervisor, who then notifies a BNL Event Categorizer, at Ext. 1234 or 631-433-0443. The Categorizer has the responsibility of deciding whether an event or condition should be reported to DOE and of reporting it within two hours.

If a supervisor is not available, the staff member or guest should make the call to the Event Categorizer. The Lab maintains a staff of qualified Event Categorizers on a rotating schedule 24 hours a day, 7 days a week. However, in the last 48 declared occurrences, 16 were not reported to the Categorizer in time.

Even if you or your supervisor is unsure of whether an abnormal event or condition is reportable, please call the Event Categorizer as soon as is practical after stabilizing the situation and within two hours of discovery. Calling the Categorizer does not automatically mean that the event/condition will be reportable to DOE: only 10 percent of calls to the categorizers result in Occurrence Reporting and Processing System reports. But a timely call will allow the Categorizer to fulfill BNL's responsibility to report occurrences to DOE on time.

For more information, see https://sbms.bnl.gov/sbmssearch/subjarea/74/74_SA.cfm.



Roger Stoutenburgh 00090309

Say Hello to Kevin Dusling, Say Goodbye to His Hair

Today, BNL's Kevin Dusling has a full head of hair. After the upcoming weekend however, this Physics Department research associate will have none—but he won't look to cover his head with a toupee any time soon.

Tomorrow, Saturday, March 14, Dusling will join fellow Long Island volunteers at Tommy's Place bar and restaurant in Rocky Point as they shave their heads in unity to raise awareness and funds to cure kids' cancer through St. Baldrick's Foundation. A nonprofit organization, St. Baldrick's is one of the world's largest volunteer-driven fundraisers and has raised more than \$50 million dollars to help support childhood cancer research.

This is the second year that Dusling will shave his head for St. Baldrick's. Last year was a lot of fun—good food, drinks, a really good Irish band—and we raised nearly \$30,000, he explained.

BWIS 30th Anniversary Events, 3/17 & 25

In celebration of its 30th anniversary, Brookhaven Women in Science (BWIS) is sponsoring events during Women's History Month:

Tuesday, March 17, 11:45 a.m.-1:15 p.m., Berkner Hall, lower lobby: BWIS membership drive. Dues are \$10 per year for BNL employees and \$5 per year for associate members. New members will receive a fresh flower while supplies last.

Wednesday, March 25, noon-1 p.m., Berkner Hall, Room A: Join BWIS founders and board members for a brown bag networking lunch. Coffee and cake will be served.

The primary goal of BWIS is to increase the Lab's awareness of the accomplishments of women in science and to aid in women's advancement in scientific and related technical careers. Faithful to its founding goal, the group encourages students to consider careers in science, mathematics, engineering and technology.

BWIS is supported primarily through yearly members' dues and contributions from Brookhaven Science Associates. The entire BNL community—women and men, scientists and nonscientists—are invited to join BWIS.

For more information, see the BWIS website: <http://www.bnl.gov/BWIS/default.asp>.

LIANS Dinner Meeting, 3/18

ANS President To Talk on US Nuclear Renaissance

All are welcome to attend a talk by William E. Burchill, President, American Nuclear Society, at the dinner meeting of the Long Island Chapter of the American Nuclear Society (LIANS) on Wednesday, March 18. Burchill's topic will be "The U.S. Nuclear Renaissance and the Challenges It Presents."

The dinner meeting will be held at the South Shore Restaurant, 388 Medford Ave., Patchogue, just north of Sunrise Highway, at \$25 per person. Complimentary appetizers/cash bar will start at 6 p.m., and dinner with salad, choice of entrée and dessert, and beverages will start at 7 p.m. Burchill's talk will begin at 8 p.m. Reserve by Monday, March 16, leaving a message with Arnie Aronson, Ext. 2606.

This year should be just as good, and we hope to raise \$50,000.

Dusling first learned of St. Baldrick's through his father and uncles-in-law, who help organize these events each year in several locations on Long Island. Other St. Baldrick's head-shaving events will also take place on March 14 at Napper Tandy's Pub locations in Northport and Smithtown.

St. Baldrick's Foundation really gets money out there for cancer research, Dusling added. Not only is it a fun event—the money raised helps to fund research, researchers, and clinical trials in the fight against childhood cancer.

If you would like to volunteer for an upcoming St. Baldrick's event, as a shaver or shaver, go to <http://www.stbaldricks.org>. Anyone who would like to sponsor Dusling can contact him at kdusling@bnl.gov. Joe Gettler

New Program: Making Homes More Affordable

If you are having difficulty making your mortgage payment even if you are not late or in foreclosure, you may be eligible for a mortgage loan modification. This program is being made available to responsible homeowners who find themselves financially strapped due to the downturn in the economy. President Obama has called this program "Making Home Affordable Modification" and you can find out if you qualify to have your interest rate reduced by visiting either www.financialstability.gov or your mortgage lender's website. This program was created within the last several weeks and is aimed at middle-income homeowners in order to prevent a situation that would lead to foreclosure. For more information, call Nancy Losinno, Employee Assistance Program Manager, Ext. 4567.

Earth Day Art Contest Open to BNL Employees' Children

The "Your Environment" art contest challenges children in grades 3-5 to create a poster that relates to environmental sustainability. Suggested topics include: recycling, clean water, clean air, protection of wildlife, compliance with environmental laws, or any other topic your child may feel is important to the earth's environmental health. Prizes will be awarded at the annual Earth Day Award Ceremony on April 23, at 4 p.m. in Berkner Hall.

For details, go to <http://intranet.bnl.gov/ewms/internal/Miscellaneous/ArtContest/ArtContest.pdf> or contact Karen Ratel, Ext. 3711 or ratel@bnl.gov.

'Take Children to Work' Plans: Volunteers Needed

Volunteers are needed to participate in a planning committee for "Take Our Children to Work Day," which will be held on Thursday, April 23. Contact Ernie Tucker, Ext. 5735, tucker@bnl.gov, or Liz Gilbert, Ext. 2315, gilbert@bnl.gov for more information.

TIAA-CREF One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on Wednesday, March 18, and Tuesday, March 24, to answer employees' questions about their financial matters. For an appointment, call 1-800-732-8353.

5th Annual Dr. Mow Shiah Lin Scholarship Call for applications

BERA's Asian Pacific American Association (APAA) is accepting applications for the 5th annual Dr. Mow Shiah Lin Scholarship, honoring the late Lin, a distinguished scientist in BNL's Energy Sciences & Technology Department.

In honor of Lin's research, remarkable achievements, and inventions, a one-time award of \$1,000 is granted each year to an Asian immigrant with a student visa who is matriculating toward a doctorate at an accredited institution of higher education on Long Island (including Queens and Brooklyn) in environmental & energy technology, biology, or chemistry.

The criteria for selection include academic records, references, career goals, and other factors deemed appropriate by the committee. The winner is chosen by a selection committee consisting of scientists at BNL and members of the APAA. The scholarship will be granted independent of financial need and without regard to other forms of aid to the student.

With this scholarship, the Lin family hopes to make a difference for students who come to the United States, like Dr. Lin, to pursue higher education and achieve their research goals with the purpose of making significant contributions to the environment and improving the lives of all humankind.

Administered by the BNL Diversity Office, the APAA is now accepting applications for the Dr. Mow Shiah Lin Scholarship through May 31, 2009. School transcripts from the previous two semesters, two professional letters of reference, and an essay, which summarizes the objectives of the applicant's education program and long-range research goals, must be attached to the application. The essay should be concise, limited to one page, and double-spaced.

For more information or to obtain copies of the application form, contact the BNL Diversity Office at 631-344-6253 or sge@bnl.gov, or visit the APAA web site at www.bnl.gov/bera/activities/apaa/.

BSA Noon Recital, 3/25

Featuring Music from "Frankenstein"

The Covington String Quartet will play music composed to accompany the silent movie "Frankenstein" on Wednesday, March 25, at noon in Berkner Hall. Sponsored by Brookhaven Science Associates, the company that manages the Lab, the concert is free and open to the public. All visitors to the Laboratory age 16 and over must bring a photo I.D.

Charming and challenging audiences and critics with performances of classical and contemporary works, the Covington Quartet retains a focus on great quartet masters of the 18th and 19th centuries, but also explores new horizons.

The Quartet recently premiered original background music by Yukiko Nishimura to accompany Edison's 1910 silent film, "Frankenstein." This music will be performed during a projection of the short movie in its original 1910 form. String quartets by Haydn and Goldmark make up the balance of the recital. For more information on the performers go to: <http://www.covingtonstringquartet.com>. Jane Koropsak

CALENDAR

WEEK OF 3/16

Tuesday, 3/17

*BWIS Membership Drive
11:45 a.m.-1:15 p.m. Berkner Hall lobby. Both men and women are welcome to join Brookhaven Women in Science (BWIS), \$10/year. See notice, left.

Wednesday, 3/18

*Two George B. Pegram Lectures
11 a.m. Berkner Hall. Nobel Laureate Paul Nurse, President of Rockefeller University, will speak on "Controlling the Cell Cycle."
4 p.m. Berkner Hall. Paul Nurse will talk on "The Great Ideas of Biology." All are welcome to this free talk, open to the public. Visitors to the Lab of 16 and over must carry a photo ID. See pg. 1.

WEEK OF 3/23

Monday, 3/23

IBEW Meeting
6 p.m. Centereach Knights of Columbus Hall, 41 Horseblock Rd., Centereach. A meeting for shift workers will be held at 3 p.m. in the union office. The agenda includes regular business, committee reports, and the president's report.

Tuesday, 3/24

Homebuyer Education Seminar
Noon-1 p.m. Berkner Hall. A representative of Long Island Housing Partnership will talk on mortgages: choice, understanding applications, determining affordability, obtaining free preapprovals, budget & credit counseling, credit history, grant eligibility. All are welcome.

Wednesday, 3/25

*BSA Noon Recital, "Frankenstein"
Noon. Berkner Hall. The Covington String Quartet will play music composed to accompany the silent movie "Frankenstein." All are welcome to this free concert, sponsored by Brookhaven Science Associates and open to the public. Visitors to the Lab of 16 and over must carry a photo ID. See notice, left.

*BWIS Brown Bag Lunch
Noon-1 p.m. Berkner Hall, Room A. Join Brookhaven Women in Science founders, board members, to network. Bring your lunch; coffee and cake will be served.

*Seminar: Investment Strategy
Noon-1 p.m. Hamilton Seminar Room, Bldg. 555. A TIAA-CREF representative will focus on "Developing an Investment Strategy in the Current Economy," with Q&A session included. See notice, pg. 2.

Friday, 3/27

Employee Lunchtime Tour
Noon-1 p.m. Berkner Hall lobby. Meet a group to be taken to visit the Science Learning Center. All are welcome. No reservations necessary.

Note: This calendar is updated continuously and will appear in the Bulletin whenever space permits. Submissions must be received by the preceding Friday at noon to appear in the following week's Bulletin. Enter information for each event in the order listed above (date, event name, description, and cost) and send it to bulletin@bnl.gov. Write "Bulletin Calendar" in the subject line.

Arrivals & Departures

Arrivals

Michael Costanzo..... C-AD

Departures

Lori-Anne Neiger..... Pol. & Strat. Planning Ofc

Correction:

On Friday, March 6, *The Bulletin* regrets having inadvertently misspelled the name of Changcheng Xu, who joined the Biology Department last week.

