ulletin Vol. 62 - No. 28



August 15, 2008



Event speakers were: (from left) DOE's Michael Holland, Congressman Tim Bishop, BNL's Jill Clough-Johnston, and BNL Director Sam Aronson.

Wide Resources of Small Businesses Showcased to Customers at BNL

On Friday, the lobby and Room serves on the House Budget, B of Berkner Hall buzzed with Qs and As as perspective customers checked out and got information on services available from advocate for local business.

approximately 20 vendors who participated in BNL's Small **Business Sup**plier Showcase.

The showcase was organized by Jill Clough-Johnston, BNL's

Small Business Liaison Officer, to familiarize Lab employees and others responsible for purchasing activities with the products and/or services available from small business suppliers. Other organizations present to interact with the small business representatives were: Empire State Development Corp., Metropolitan Transportation Authority, Northrop Grumman Corp., U.S. Small Business Administration, the Stony Brook University Small Business Development Center, and the Suffolk County Economic Development Organization.

In his welcoming remarks, BNL Director Sam Aronson congratulated the vendors on fulfilling an important role at BNL and at all DOE facilities. "You are directly supporting our science missions," he said. Aronson explained how the Lab reciprocates this support. "Last year, we awarded 54 percent of all subcontracting dollars to small businesses. Of this, \$38M was awarded to small businesses in New York, with \$24M of it going to Suffolk County small businesses."

Aronson introduced Congressman Tim Bishop, who

Education & Labor and Transportation & Infrastructure Committees and is a recognized

^{III}The Lab is an economic engine for our region. I commend the Lab for keeping the work right here to the greatest extent possible.

Congressman Tim Bishop

"I am proud to represent Brookhaven Lab and its employees," Bishop said. "The Lab is an economic engine for our region. I commend the Lab for keeping the work right here to the greatest extent possible. And you, [the small businesses] do a great job supporting the Lab."

Michael Holland, Manager of the DOE Brookhaven Site Office, also welcomed the vendors on behalf of DOE. "The Department of Energy is committed to fostering the growth of small businesses," he said. "Across the country, the Department procures about \$22 billion per year. We establish goals for our subcontractors to meet in using small businesses, and last year, BNL exceeded those goals."

In addition to the wealth of information given out at the event, Clough-Johnston announced that all BNL's small businesses suppliers who submitted a company profile will also be showcased in the FY07 **BNL Small Business Suppliers** Guide, which will be kept in the Liaison Office.

"This book is a buyer's resource that we will make available to all BNL/DOE employees on site," said Clough-Johnston. — Liz Seubert

International Safeguards Project Office Honored With Special Service Award

The International Safeguards Project Office (ISPO) at BNL received a Special Service Award from the Institute of Nuclear Materials Management (INMM), which cited the 10-member group for "its contributions to international safeguards, especially the technical oversight of the U.S. Support Program to IAEA Safeguards." The IAEA, or International Atomic Energy Agency, works with its 144 member states - most countries in the world — to prevent the spread of nuclear weapons and to promote the safe, secure and peaceful use of nuclear technologies.

Susan Pepper, head of ISPO at BNL, and several ISPO staff members accepted the award, a plaque inscribed with the award citation, at the INMM's 50th anniversary annual awards banquet held in July in Nashville, Tennessee.

"This is a tremendous honor for us," Pepper said. "The work we do could not be accomplished without sustained support from Brookhaven Lab and from the Subgroup on Safeguards Technical Support, which is composed of representatives from the U.S. Departments of State, Energy and Defense, and the Nuclear Regulatory Commission. Together, we are helping to make



The award-winning International Safeguards Project Office team at BNL included: (from left) the late Robert Sinatra, Nereida Santiago, Raymond Diaz, Josh Tackentien, Donna Occiogrosso, Susan Pepper, Al Queirolo, and Michele Rabatin. Team members stationed in Vienna are pictured on pg. 3.

the world a safer place."

Founded in 1977, ISPO is responsible for the technical and administrative management of the U.S. Support Program to the IAEA Safeguards. The IAEA is located in Vienna, Austria. Specifically, ISPO helps to verify compliance with the nonproliferation treaty and safeguards agreements between the IAEA and its member states.

"We are essentially a technology transfer program," Pepper said. "We work with most of the national labs and with private industry to provide nuclear safeguards technologies, such as radiation detectors, seals, in-

formation systems, and training to IAEA inspectors. Without our program this technology would not be available to the IAEA."

Among its significant accomplishments, ISPO started an internship program in 2002 to encourage young people to pursue careers in nuclear safeguards work. So far, 50 people have taken one-year internships in the Vienna office, and two of the interns have been hired by ISPO at BNL.

One of the training courses that is funded under the U.S. Support Program and managed by ISPO is complementary See ISPO Award on pg. 3

INMM Honors BNL's ISPO Founder Herbert Kouts

In addition to honoring the International Safeguards Project Office (ISPO) at BNL, the Institute of Nuclear Materials Management honored the late Herbert Kouts, a senior physicist at BNL from 1950 to his retirement in 1989. Kouts died on January 7, 2008. A "resolution of respect," which enumerated Kouts's significant contributions to the field of nuclear technology and nuclear safety and safeguards, was read at the organization's annual awards ceremony.

Among his numerous professional accomplishments, Kouts is credited with leading the establishment of ISPO at BNL in 1977 to help strengthen International Atomic Energy Agency safeguards as part of the U.S. Support Program.

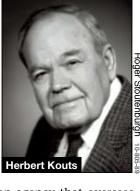
In 1963, Kouts won DOE's E.O. Lawrence Award for his research on reactor development. He was one of the five co-inventors of the High Flux Beam Reactor, in operation from 1965 to

1999. The American Nuclear Society honored Kouts's lifetime achievements with the American Nuclear Society's 2005 George C. Laurence Award.

After his retirement from BNL, Kouts started a second career as a Presidential appointee to the Defense Nuclear

Facility Safety Board, an agency that oversees the nuclear safety of DOE defense facilities.

For more information about Kouts's contributions to his field, see the Bulletin obituary at: http://www.bnl.gov/bnlweb/pubaf/bulle-— Diane Greenberg tin/2008/bb020108.pdf.

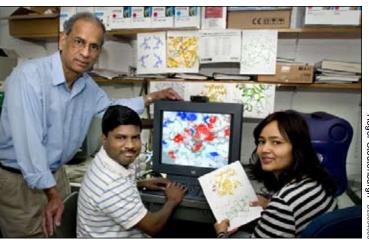


Scientists Determine Drug Target for Most Potent Botulinum Neurotoxin

Botulinum neurotoxin — responsible for the deadly food poisoning disease botulism and for the beneficial effects of smoothing out facial wrinkles can also be used as a dreaded biological weapon. When ingested or inhaled, less than a billionth of an ounce can cause muscle paralysis and eventual death. Although experimental vaccines administered prior to exposure can inhibit the destructive action of this neurotoxin - the most deadly protein known to humans - no effective pharmacological treatment exists.

Now, working at the National Synchrotron Light Source (NSLS), scientists at BNL and the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) have taken the first step toward designing an effective antidote to the most potent form of the toxin. They have found that they can trick the toxin to bypass its normal binding protein, thereby blocking its deadly action. The results of their research are reported in the July 4, 2008 issue of the Journal of Biological Chemistry. This research was funded by the Defense Threat Reduction Agency of the U.S. Department of Defense. The NSLS is supported by DOE's Office of Basic Energy Sciences, Office of Science.

"We have found a highly efficient inhibitor of botulinum neurotoxin type A — the most potent of seven neurotoxins produced by the bacterium Clostridium botulinum. This finding can lead to a very effective drug to stop the devastating effects of the toxin," said Subramanyam



Biology Department researchers on botulinum neurotoxin: (from left) Subramanyam Swaminathan, Desigan Kumaran, and Richa Rawat

Swaminathan of the Biology Department, the study's co-principal investigator. "We intend to do further research to tailor the inhibitor for the best results."

"We are excited about the success of this work and the prospects it holds for future drug development," said USAM-RIID principal investigator S.

Ashraf Ahmed, who initiated the structure-based inhibitor design as part of the Institute's bio-defense research program.

The toxin works by blocking the release of neurotransmitters - chemicals nerve cells use to communicate with one another and with muscles. This paralyzes muscles — including those that enable breathing. To block the toxin's action, the researchers designed four "decoy" protein fragments that mimic the structure of the protein to which the toxin ordinarily binds. The toxin then attaches itself to the decoy fragments instead of to the cell's protein. This re-routing of the toxin allows neurotransmitters to keep functioning, thus stopping the toxin's pathological effects. See Botulinum on pg. 3

The Bulletin

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

- EACH WEEK -

Weekdays: Free English for Speakers Of Other Languages Classes

Beginner, Intermediate, Advanced classes, various times. All are wel-come. 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 5:15-6:15 p.m. Rec. Hall. 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. 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 1st & 3rd Tuesday of month, 5:30 p.m., Bldg. 463, Rm 160. Guests, visitors welcome. www.bnl.gov/bera/activities/toastmstrs/

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

Tue., Thurs. & Fri.: Ving Tsun Kung Fu Noon-1 p.m., B'haven Center, North Room. Taught by Master William Moy. Scott Bradley, Ext. 5745, bradley@bnl.gov

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

Tuesday & Thursday: Aqua Aerobics 5:30-6:30 p.m., Pool. Ext. 5090

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

Wednesdays: Ballroom Dance Class B'haven Center, N. Ballroom. Instruc-tor: Giny Rae. Starts September 12 and 19. Ext. 3845

Wednesdays: Weight Watchers Noon-1 p.m. Michael Thorn, Ext. 8612

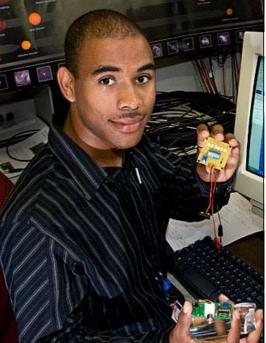
Wednesdays: Yoga Noon-1 p.m., B'haven Center. Free. Ila Campbell, Ext. 2206, ila@bnl.gov

Wednesdays: LabVIEW 1:30-3 p.m., Bldg. 515, 2nd fl. Semi-nar Rm. Free technical assistance from LabVIEW consultants. Ext. 5304

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

Summer Intern Kirsten Dorans Highlights Three Fellow Interns

<u>Reamonn Soto</u>



Roger Stoutenburgh D2700708

Reamonn Soto, a BNL Office of Educational Programs 2008 summer student, used his internship as a chance to quench his thirst for knowledge. Soto, who graduated from Tallahassee Community College in April, loves finding out as much as he can about how the world around him works.

As a Community College Institute (CCI) student, Soto worked with BNL physicist Helio Takai on the Mixed Apparatus Radio-wave Investigation of Atmospheric Cosmic-rays of High Ionization (MARIACHI) Project. MARIACHI is a unique research collaboration between BNL and high schools and universities investigating whether radio waves can be used as an inexpensive method to detect ultra-high-energy cosmic rays — subatomic particles with extreme kinetic energy.

"I've really enjoyed my time at BNL," Soto said. "It feels like my second home. I stayed focused on my education here."

When he's not searching for cosmic ray showers, Soto enjoys tai chi, yoga, Reiki, and Bible studies. Back at home in

Florida, he also takes flight lessons.

When Soto talked about some of the questions he is asking this summer, his eves lit up.

"We are bombarded by particles that come from outer space," he said. "We don't know how they might affect us. Can these particles have any effect on our weather - on cloud formation or temperature? These are some of the things that we hope to discover."

For his project, Soto worked with high school and college students to install liquid scintillator detectors at four local high schools. There are also radar detectors at all of these locations. The scintillators will serve as a control to detect neutrinos produced from cosmic ray showers. When all four of the scintillators detect neutrinos at exactly the same time, a cosmic ray shower has occurred.

"If the radar detectors in the classrooms detect the shower at the same time as the scintillators, we can validate that radar detection is an inexpensive tool to detect ultra-high-energy cosmic See Reamonn Soto on pg. 3

Vicky Giese, a BNL Office of Educational Programs summer student in the DOE Science Undergraduate Laboratory Internship (SULI) program, knows it's never too late to start something new. Giese, who has already raised four boys, returned to school to complete an undergraduate degree in cellular biology after her youngest son graduated from high school. "I went through a traumatic divorce and decided to use that as a catalyst to

bring about a positive change in my life," she said.

Giese first completed pre-requisite courses and two years of undergraduate work at Allan Hancock College, the junior college in her hometown of Santa Maria, California. She was recently accepted to California Polytechnic University of San Luis Obispo and will start there as a junior in the fall.

Completing an undergraduate degree as a returning student initially seemed insurmountable to Giese, but she persevered.

"At first, I thought to myself, 'There is no way I can do this," she said. "Every semester, I still surprise myself."

Since returning to school, Giese has received 18 scholarships and has participated in two internships, including this one at BNL. She has also succeeded at adjusting to a new social environment at school.

"When I first started school it was

Despite his calm demeanor, Xavier Driver, spaced boxes known as release points and BNL Office of Educational Programs summer student, keeps himself busy. When he's not studying biology, the student from Fort Berthold Community College plays bass in a thrash metal band — a high-speed, aggressive subgenre of heavy metal music and writes comics with a friend. "I'm writing the superhero stuff and my friend is going to write the paranormal stuff," said Driver, adding that his comic-book inspiration is Batman. Driver has been at the Lab as part of a Faculty & Student Team (FaST) from Fort Berthold Community College in North Dakota. Along with Fort Berthold professor Tom Abe and student Richard Deane, he worked with John Heiser, a BNL environmental research engineer. The research team explored the path of perfluorocarbon tracers (PFTs) — inert manmade gases that can be easily detected when they are released into the air. PFTs, which are safe and have no environmental consequences, have been used since the early 1980s to study air movement and leak detection. The group released PFTs from evenly

tough learning how to fit in socially with students who viewed me as a mother figure," she said. " I now see this as another adventure and remind myself that because of my life experiences I have a lot to contribute."

Giese spent her first internship in the summer of 2004 at the University of California, Santa Barbara, chemistry department, doing cancer research.

This summer, Giese changed gears, focusing on environmental research. As a DOE Science Undergraduate Laboratory Internship (SULI) student, she worked with Tim Green, the Cultural & Natural Resource Manager at BNL. Giese correlated invertebrate distribution with water quality throughout Long Island's Carmans River. Aquatic invertebrates, which provide food to other aquatic species, are currently threatened by development and water contaminants. She planned to identify specific areas of concern along the river, to help plan mitigation projects that will lessen environmental threats to the river's pristine ecosystem.

"This has been a dream come true," Giese said. "Given this opportunity to have an internship here at Brookhaven has been truly the opportunity of a lifetime, which I know will impact my future in a positive way. When I saw the microscope in the lab that I would be using, my heart fluttered with excitement. I never see Vicky Giese on pg. 3

then studied the Gaussian curves the PFTs make as they fly away from the release points.



Roger Stoutenburgh D1780608

Thursdays: Reiki Healing Class Noon-1 p.m., Call for location. Nicole Bernholc, 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.



Roger Stoutenburgh D2940708

"We track the movement of the PFTs by taking air samples with personal air samplers that can detect the PFTs," Driver said. "We are trying to determine how far the PFTs released from one box travel before hitting the PFTs released from a nearby box."

Understanding more about the movement of PFTs in air has potential applications in homeland security, air quality, and climate change research. Previously, BNL researchers, including Heiser, were part of a team that tracked the motion of PFTs through New York City to model how dangerous contaminants released from an industrial accident or terrorist attack might move through an urban environment.

Driver, who had never been to New York City before coming to the Lab, has had a great time exploring the urban canyons of Manhattan. He also enjoyed being at BNL's calm site.

See Xavier Driver on pg. 3

The Bulletin

Botulinum from pg. 1

The scientists used x-ray techniques at NSLS beamline X29 to see how the toxin binds to the protein inhibitors. They found that all four decoy proteins are efficient at inhibiting the toxin's binding to the cell's protein, but one of them in particular is by far the best of any known inhibitors. The scientists' next step in this process is to transform the most effective of the four protein fragments into a drug-like molecule before clinical testing is done.

"This study represents an impressive collaboration in identifying potential inhibitors of the toxin for therapeutic use," said Colonel George W. Korch, Jr., USAMRIID's commander. "It builds upon the successes we have realized in developing effective next-generation vaccines to protect our citizens against the toxin's deadly effects prior to exposure."

The scientists did not work with intact Clostridium botulinum bacteria. Instead, they produced a functional fragment of the neurotoxin protein, which is not toxic. The research is performed in strict compliance with BNL's Institutional Biosafety Committee regulations according to standards set by the U.S. Centers for Disease Control and Prevention. Only authorized scientists have access to the laboratory.

— Diane Greenberg

Reamonn Soto from pg. 2

rays over an area of a couple thousand kilometers," Soto explained.

"This project has really inspired me and given me the confidence to do research," Soto said. "I've been getting hands-on training and the experience of actually becoming a scientist." – Kirsten Dorans

For more information about the CCI program and the other internships offered through BNL's Office of Educational Programs, see www. bnl.gov/education/programs.asp. To learn more about the MARIACHI experiment, visit www.phy.bnl. gov/~takai/MariachiWeb/.

Vicky Giese from page 2 imagined that I would have the opportunity to work with tech-

nology this amazing." After she finishes her undergraduate degree, Giese plans to attend graduate school, but she is not sure what she wants to study yet.

"I have a passion for adventure and discovery so research is something that I love," she said. "I have always enjoyed being outdoors and this experience will help me have a better understanding of the environment and the intricate role it plays in the health of the animals that live there. This internship is an opportunity to broaden my horizons in science." - Kirsten Dolans

ISPO Award from pg. 1

access training, which enables safeguards inspectors to practice their skills and questioning techniques for identifying undeclared facilities and activities. This course was delivered for the third time to IAEA students in June.

Diane Greenberg

At right: Erik Sherr and Barbara Hoffheins are ISPO team members who work in the Vienna office.

Xavier Driver from page 2

"I like it here, that's all I can say," Driver said with a smile on his face. - Kirsten Dolans

Note: The Fort Berthold team was funded by a grant from the National Nuclear Security Administration. For more information about the FaST program and the other internships offered through BNL's Office of Educational Programs, visit www. bnl.gov/education/.

To learn more about PFT research at BNL and its widespread applications, visit /www.bnl.gov/des/ertd/ TracerTechnologies/.

Camera Club Meeting, 8/20

The Camera Club will meet to critique the portraits from the Next Top Model in Science studio photo shoot held last week. Members should bring their work on a CD. Plans will be made for the next club events. The meeting will be held in Berkner Hall Room D, on Wednesday, August 20, noon to 1 p.m. For more information, contact Ripp Bowman, Ext 4672.

School Supplies Drive

The annual BERA/Recreation School Supplies Drive is now in progress. Donations are requested for schoolchildren who will not have adequate items such as notebooks, folders, glue, crayons, pens, pencils, backpacks, and lunch bags for the coming term. Drop off all supplies you can muster to the Quality of Life/ BERA/Recreation Office in Bldg. 400. Your contributions will make a difference.



Benefits Office Reminder: Proof of Student Status

All medical/dental plan participants are reminded to submit updated proof of student status to the Benefits Office, Bldg. 400B, for the upcoming college semester. The Benefits Office will submit this to the insurance company on your behalf. Proof of student status must be in writing from the college or university and include:

- Dependent name
- Name of college/university
- Semester for which the child is attending

• Indication of full-time status (usually at least 12 credits for undergraduate programs)

For a child over age 19 to be eligible for benefits, he or she must be unmarried, a full-time student attending an accredited college or university and primarily supported by you. Dependent children who meet these criteria may be covered until the end of the year in which age 23 is attained.

Employees covering dependent children over the age of 19 as full time students should be aware that full time students are only covered in between semesters if the student attends classes on a full-time basis for both the Spring and Fall semesters. Otherwise coverage ends on the last day the child attended an accredited college or university on a full-time basis. If there is a possibility that the child may not be in full-time attendance in the Fall, please contact the Benefits Office immediately to discuss continuation of benefits through COBRA.

You must notify the Benefits Office if you have dependents on your coverage that do not meet the above criteria. These dependents may be eligible for COBRA benefits. For more information, call the Benefits Office, Ext. 2877 or 5126.

Defensive Driving Course In Two Parts, 8/25 & 28

The next six-hour Defensive Driving (Point and Insurance Reduction) course will be held in two parts on Monday and Thursday, August 25 and 28, in the Brookhaven Center South Room, from 6 p.m. to 9:15 p.m. The course is open to BNL, BSA, and DOE employees, facility-users, and their families. The cost is \$38 per person. Preregistration is required. To register, call Ed Sierra, 821-1013, and leave a message. Be sure to include your phone number. For additional information, call Sarah Wiley, Ext. 4207.



August 15, 2008

CALENDAR - THIS WEEKEND -

Sunday, 8/17

*Summer Sundays: RHIC

10 a.m.-3 p.m. Last Summer Sunday of 2008. Open to the public. All are invited to visit the Lab for free tours. No res-ervations needed. Witness the Whiz Bang Science Show, try your hand at the Brain Teasers exhibit. Visit the Relativistic Heavy Ion Collider on site. Visitors to the Lab of 16 and over must carry a photo ID. See notice below, pg. 4.

— WEEK OF 8/25 —

Monday, 8/25

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.

*Defensive Driving, Part I

6-9:15 p.m. Brookhaven Center, South Room. Part I of a two-part course. Part II will be on Thursday, 8/28 (see below). See also notice, left.

Thursday, 8/28

*Defensive Driving, Part II 6-9:15 p.m. Brookhaven Center, South Room. Part II of a two-part course. See notice, left.

- WEEK OF 9/1 -

Monday, 9/1

Labor Day Holiday

The Lab will be closed in ob-servance of the Labor Day Hol-iday. No Bulletin on 9/5/08.

Tuesday, 9/2

BERA Trip to NY Open

8:30 a.m. Coach leaves Brookhaven Center for stadium, leaves stadium 7:30 p.m. (Today is not a Lab holiday.) \$58/ person includes ticket to tennis matches and transportation. Section 311 and 312 in the Upper Promenade level. Buy ticket at the BERA Store, Berkner Hall.

— WEEK OF 9/15 —

Wednesday, 9/17

Brookhaven Lecture

4 p.m. Berkner Hall. Yong Cai, National Synchrotron Light Source II Project, will discuss a new experimental beamline being planned for NSLS-II that will use inelastic scattering technology to probe in greater detail than ever before the atomic motions in liquids and solids. All are welcome to this free lecture, open to the public. Visitors to the Lab of 16 and over must carry photo ID.

Saturday, 9/20

BERA Trip, Football Game

7 a.m. B'haven Center. Coach

For more on Vicky Giese, see www.bnl.gov/today/story. asp?ITEM_NO=762. For information about the SULI program and the other internships offered through BNL's Office of Educational Programs, see www.bnl.gov/education/.

Arrivals & Departures – Arrivals –

None

 Departures – 	
Tianshi Lu	Comput. Sci.
Robert Ritter	C-AD
Mary Schultz	Fisca

BNLers Run/Walk at Jones Beach

On the evening of July 29, 45 BNLers gathered at Jones Beach State Park, all set for the Marcum and Kliegman Workplace Challenge. The action kicked off with a 3.5 mile run/walk, followed by an "Office Picnic."

This event is Long Island's largest participatory event, with about 7,500 attendees who represented 200 companies from businesses, nonprofit, and governmental agencies in Nassau and Suffolk Counties. The event is open to employees and their families and friends.

Thanks to "mover and shaker" Paul Geiger, who largely coordinated BNL's participation, the Lab formed a total of 11 teams: seven men's, three women's, and one mixed.

The mixed team of Dave Harder, Mike Mapes, Weimin Zhou, and Krista Sanniola finished second out of 73 teams in their category with a combined time of 1:40:23, just four seconds behind the first place team from Ernst Young LLP. The men's team of Terry Sullivan, Percy Zahl, and Victor

Usack finished fifth out of 142 teams in their category with a combined time of 1:04:48. The women's team of Betty Elder, Christine Brakel, and Marie Van Buren finished 18th out of 93 teams in their category. After all this exercise, the participants relaxed and enjoyed a picnic organized by Elder, and posed for photos by Van Buren.

Says Geiger, "Thanks to all who participated and everyone is welcome to come join us next year." - Liz Seubert

leaves for west Point Arm Akron game, leaves W. Pt. at 5p.m. or end of game. Cost of \$65/person covers coach, admission and hot tailgate catered luncheon. Buy tickets at the BERA Store, Berkner Hall.

- WEEK OF 9/22 -

Saturday, 9/27

New York City Dinner Cruise

5 p.m. B'haven Center. Coach departs for World's Fair Ma-rina, Flushing, to join dinner cruise, 7-11 p.m. Buffet, des-sert, coffee, DJ dancing, coach transportation included (cash bar). Buy tickets at the BERA Store, \$90/person, 21 & over only.

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.

Classified Advertisements

Placement Notices

The Lab's placement policy is to select the best-qualified candidate for an available position. Candidates are considered in the following order: (1) present benefits-eligible employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present benefits-eligible employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action Plan, selections are made without regard to age, race, color, religion, national origin, sex, disability or veteran status. Each week, the Human Resources Division lists new placement notices, first, so employees may request consideration for themselves, and, second, for open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people. Except when operational needs require otherwise, positions will be open for one week after publication. For more information, contact the Employment Manager, Ext. 2882. Access current job openings on the World Wide Web at www.bnl.gov/HR/jobs/.

To apply for a position, go to www.bnl. gov. Select "Careers at Brookhaven" then "Employment Opportunities."

OPEN RECRUITMENT – Opportunities for Lab employees and outside candidates.

SR. APPLICATIONS ENGINEER (I-8) - Requires a bachelor's degree or equivalent experience, preferably in computer science or related discipline and eight years-plus of relevant experience. Candidates with appropriate scientific interests (heavy-ion physics) and backgrounds (PhD in physics) would be considered. Strong background in database (MySQL server administration and schema design) and computer systems administration (Linux) concepts as well as knowledge in backup, data safety and scripting languages such as PERL necessary. Knowledge in one C-oriented programming language (C, C++) is required and additional experience in web languages (XML, PHP, JavaScript) would be an asset. Responsibilities will include the design of complex technical solutions independently and the ability to factor in cross components dependencies in support of the STAR database needs. The Sr. Applications Engineer will be expected to support realtime system database needs, data mining, data production database access needs (calibration, database-data logging, and data monitoring) and act as a consultant to other IT staff supporting the real-time system and need for database services. They will help administer both online and offline database servers, especially during periods of data recording at RHIC, and will be responsible for maintaining the production environment of STAR's 10 node MySQL database servers (Linux based), database data logging processes , database related information and data migration to STAR's offline databases. With the assistance of STAR's computer and user support team, the candidate will help manage the online servers and should be directly involved in activities such as recommending or helping deploy the proper network infrastructure in support of the database needs as well as fulfill the cyber-security requirements. Will also be responsible for maintaining, developing and enhancing the STAR database API in response to the ever growing Physics requirements and demands in support of the scientific program. This will include administering the master/slave database architecture used in offline event reconstruction and simulation processes and providing assistance and technical solutions to remote site replica database servers/clients. Physics Department. Apply to Job ID# 14580.

MECHANICAL RESEARCH ENGINEER II (P-7) - Responsibilities include the design, fabricating, evaluating and testing of complex and novel mechanical components (including vacuum chambers and appendage components). Coordinates activities and acts as primary point of contact with local shops and external vendors; develops detailed designs and procedures; resolves or assists in the resolution of complex problems with design requirements, proposes improvements and upgrades unsuitability of conventional materials, and coordinating with functional departments. Requirements include a Bachelor's degree in Mechanical engineering and at least seven years of relevant work experience with detailed design, material and manufacturing of precision mechanical components. Experience with the use of CAD, engineering drawing standards, dimensions/tolerance, and experience in performing engineering thermal, structural, and stress analysis are essential; excellent communication skills, both written and verbal required. Preferred requirements include a Master's degree in Mechanical engineering and vacuum chamber and component fabrication experience in an accelerator or light source facility. Position reports directly to the Vacuum Systems Group Leader, National Synchrotron Light Source II Project. ERAP eligible \$1,000.00. Apply to Job ID# 14587.

MECHANICAL STAFF ENGINEER (P-5) - Requires a bachelors degree in mechanical or marine engineering with a minimum of five years' engineering at

minimum of five years' engineering design and analysis experience plus knowledge of piping design, fluid flow, and heat transfer calculations. CAD/CAE computer skills with ANSYS, Pro-E, Inventor, or equivalent software are desirable and office skills with MS Word, Excel, and Project are required. Experience with rotating equipment, and/or cryogenic systems are a plus. Excellent written and verbal communication skills are required to direct the efforts of laboratory technical personnel. A desire to do creative engineering, to work hands on with mechanical equipment, and work as a team to develop and build unique equipment is required. The Collider-Accelerator Department Cryogenics Group is responsible for operation, maintenance, and upgrade of the Relativistic Heavy Ion Collider (RHIC) Helium refrigerator and provides R&D support for the superconducting RF experimental program. Mechanical engineers assigned to the group design new equipment installations, perform general heat transfer/fluid mechanics analysis, and perform stress analysis for pressure vessel and piping ASME code applications. Engineers also will provide assistance in trouble shooting of equipment problems during cryogenic system operation. Collider-Accelerator Department. Apply to Job ID# 14577.

TECHNOLOGY/NETWORK ANALYST (I-4) - Requires a bachelors degree or equivalent experience, preferably in computer science or related discipline, and a minimum of one year of hands-on experience in providing installation, configuration and troubleshooting for LAN and WAN environments. The ideal candidate will possess working knowledge of major network operating systems and protocols, preferably within a Cisco net-work environment. Demonstrated ability to configure and install Cisco network hardware and software components (e.g. Cisco 6500 series MLS, Catalyst L2 switches) with general supervision reguired. Demonstrated knowledge of Network Management tools (Cisco Works) and verifiable proficiency in their use is extremely desirable. Cisco Certified Network Associate (CCNA) certification highly desirable, or a commitment to obtain within six months of hire. Demonstrated planning, documentation, organizational, customer service, and excellent communication skills are a must. Must be available to perform network maintenance 24x7x365, as required, and be willing to serve as after-hours on-call duty network engineer approximately one week out of every six. Information Technology Division. Apply to Job ID# 14588.

ADMINISTRATIVE ASSISTANT (A-4) - Requires a bachelor's degree in a business field or equivalent years directly related Requires administrative experience. proven written and oral communications skills, strong interpersonal skills and the ability to work well with all levels of management, staff and outside vendors. Requires strong Internet research skills and computer skills, including advanced knowledge and demonstrated proficiency using Microsoft Office (Word, Excel, PowerPoint), Microsoft Visio, and Adobe Acrobat. Requires the ability to resolve complex problems within the work area. Responsibilities include establishing best business practices and procedures for the entire ITD Division Office using advanced office automation tools and techniques. Regularly interprets policies and procedures and applies independent judgment to determine the best approach to completing projects and administering processes. Creates and produces highquality exhibits for all division documents with indexing of all records in electronic format. Authorized to change or create processes to increase the efficiency of divisional administration. Designated ITD Training Coordinator responsible for training plans for all ITD staff and ensuring that notification is given to managers prior to expiration of BNL required training. Work with managers to ensure that Job Training Assessments (JTA's) are accurate. Provide office support (travel,

guest registration, etc.) to entire ITD division, assistant to the Director of ITD and reports directly to the Business Operations Manager of ITD. Information Technology Division. Apply to Job ID# 14585.

Motor Vehicles

07 TOYOTA YARIS - 4dr., a/t, a/c, 1st owner, excel. cond. 8400 mi. \$12,000/ neg. Liu, Ext. 2786 or 516-380-5173.

05 FORD F250 - SuperDuty supercab 4x4, tow/plow pkg, factory brake control, System One racks/track w/work winches. 48K mi. \$18,000/neg. 395-5773.

05 FLEETWOOD PROWLER 320DBHS mint, trailer/camper w/slide out, sleeps 10, 4 single bunks, \$17,800/neg. Ext. 4427 or 807-9916.

03 CHEVY VENTURE - a/c, p/w, 8 pass. 20/26 mpg, fr/side air bags, abs, traction cont. new tires, excel. cond. 67K mi. \$7,800/neg. Ext. 5128 or 727-4417.

00 TOYOTA AVALON XL - white, orig. owner, excel cond., always maint'd., 75K mi. \$8,500. Linda, 722-4821.

99 ISUZU RODEO - 24/19 mpg, 4wd, 6cyl, a/t, a/c, cass/cd, c/c, p/w, p/l, orig. ownr, dlr maint, excel. cond. 117K mi. \$3,500/ neg. Ext. 3492 or 734-2593.

98 TOYOTA CAMRY - great cond., well maint'd, new brakes/timing belt, dark green. 76K mi. \$6,100/neg. Ext. 5889.

97 PONTIAC GRAND AM - dark green, no scratches, cd player, pictures available. 180K mi. \$1,450/neg. Ext. 4340.

96 MITSUBISHI GALANT S - a/t, p/w, p/l, a/c, c/c, small oil leak, runs well, inspection sticker valid till June. 152K mi. \$1,600. Ext. 2618.

95 MAZDA PROTEGE LX - 4dr, a/t, p/ w, p/s, c/c, cass, airbags, New t-belt, brakes, exhaust, orig.own, 30/mpg, Best offer. 139K mi. Ext. 5358 or 593-0978.

94 CHEVROLET LT/BL - gas, 8-cyl., cab body, 4 pass. \$3,000/neg. 727-1506.

05 TRAILER, CARGO MATE - barn drs. on rear & side, sgle axl w/elec. brakes, contractor setup, V/nose 12'x6'x6' 20K mi. \$2,000/neg. 395-5773.

CHROME RIMS - 18", w/new low profile tires, grt cond. \$750/neg. 445-4027.

Boats & Marine Supplies

27' RINKER FIESTA V 260 - 1992, very clean, in water, prof. maint'd, all receipts, slps 4, low hours. Come for a ride. \$13,000/neg. Frank, Ext. 4320. BOAT TRAILER - 04, 19'-23', Venture, dble axle, all roller trailer, 4800lb capac, excel.

cond., \$2200. Ext. 5436 or 369-7809. SPEARFISHING GUN - unused, cost/\$100, ask/\$50; Dinghy 9', alum. w/oars/oar locks, can use fr sailing, \$300. 543-7065. YAMAHA S/S PROP - LH Rotation, 15 x 19, Saltwater Series SS Propeller, Fits V6 motors, excel., \$225. Ext. 5436 or 369-7809.

Furnishings & Appliances

BABY CRIB MATTRESS - Sealy, newly purchased, Used less than one week, \$30. XT, Ext. 7790.

DAY BED - w/pop-up 2nd bed below, metal, inner spring mattresses, little used, excel. cond. \$75. Ext. 4771 or 286-8747. DINING ROOM TABLE - solid honey oak, 110", seats 12 w/lighted hutch and buffet, excel. cond., \$3200. Bonnie, 379-5596. DRESSERS - 2, wood, 7 drawers and 6 drawers, \$20/ea. XT, Ext. 7790.

STROLLER - Graco, full size, multi-position flat reclining seat, drop-down storage basket & cup/snack holder, \$30. XT, Ext. 7790.

TWIN BED - all wood, w/bookcase, headbrd, inner spring mattress & box spring, circa 30s, \$75. Gerry, Ext. 4771 or 286-8747.

Audio, Video & Computers

HITACHI 52 - HD, Pristine cond., grt for Ig den/playrm, ask/\$500. 516-345-7833.

PLAYSTATION (PS) 3 - Sony, 80GB, limited Ed., Motor Storm bundle; brand new, never opened, ask/\$450. Joe, Ext. 3137. PLAYSTATION-2 - DVDROM, 1394/usb, \$70/neg, 2JSTK, no game. Ext. 2925.

Sports, Hobbies & Pets

ANIMAL HABITATS - sm. 5 fish tanks, 20/40 gal, some w/covers & eqpmt. \$10/ ea. or \$25/all. Jim, Ext. 5993 or 365-6116. BICYCLES - women's Raleigh 26, 10 spd, \$15; men's Motobecane racing 10spd, \$30; men's mtn. bike 10spd, \$10., all riding cond. 286-8747.

Last of 2008 Summer Sunday Tours: Relativistic Heavy Ion Collider, 8/17



This Sunday, August 17, will be the last in 2008 that BNL opens its doors for public Summer Sundays tours, in which a different tour is featured each week. This week, visitors will be taken to the Relativistic Heavy Ion Collider, known at RHIC. Here, they will learn how gold ions are smashed together in an underground tunnel to recreate the temperature and energy density of the early universe. The tour is appropriate for adults and children over 10 years old. However, both adults and younger children can also enjoy a variety of other entertaining activities, including the Whiz Bang Science Show and the Brain Teasers exhibit.

Summer Sundays are offered free, and no reservations are needed. Visitors may arrive any time between 10 a.m. and 3 p.m. The Whiz Bang Science Show will be staged at 10:30 a.m., noon, 1:30 p.m. and 3 p.m. All visitors age 16 and over must bring a photo ID. For more information, visit the BNL website: www.bnl.gov.

BNLers who attend are most welcome, but please check in at Berkner first to join the regular groups taken to visit the featured facility. Lone rangers who show up solo at the facility can hold up the schedule, which has to be very tight.

Tools, House & Garden

EMBROIDERY MACHINE - Brother PE 700 w/PE design 7.0 software, 60s pools of thread w/holder, ask/\$800. 987-4281. LEAF BLOWER - Sears, gas powered, \$20. Ext. 2159 or 834-8255. PUSH MOWER - Great States, cuts 18"w,

v/gd. cond., \$20. Ext. 4771 or 286-8747.

Miscellaneous

BASSINETT - White. Grt cond. w/3 sheets. \$35.00. mb@bnl.gov. Mary, Ext. 3670. CELL PHONE BATTERIES, CHARGER - 5

3.6V Li-Ion (Motorola # SNN5705B), house charger, used in Nextel. \$120. 404-8109. CHOCOLATE MOLDS - for all occasions \$1 and up. DIANE, 581-4436.

COMPUTER CHAIR - little used, black, high back w/arm rests. \$40; Lighthouse pics, framed in It. wood, pic. avail., \$50/ ea. mb@bnl.gov. Mary, Ext. 3670.

GIRL CLOTHES - Size 12-18 mos, 2T-4T. Grt cond, named brand. Most \$1 apiece. mb@bnl.gov. Mary, Ext. 3670.

HOMEDICS - foot pleasure ULTRA w/ infrared heat, never used, \$25. Ext. 2716. SHED, 8X8 - New 2x4 const. 4' door. Floor + window if wanted. Color opt. Local delivery. \$1000 George, 878-1178.

SMOKER/GRILL - fish/meat, used 1 time, like new, \$25; direct tv dish w/boxes/2 remotes, \$175. John, 543-7065.

SPRINKLERS - poly pipe, also installation, repairs. Michael, Ext. 5262 or 284-2277.

SUITCASE - Jansport, cargo hold rolling, new w/tags, 30", \$50. Ext. 4771 or 286-8747. TODDLER CAR SEAT - Blue. good condition. \$40. Mary, Ext. 3670.

TOLLY GIRL 18 - 2 dolls, Trisha & Jillian, new-n-box, same size as 'American Girl' dolls, pic avail., \$15/both, Ext. 3906.

Community Involvement

For Rent

EAST ISLIP - 2 bdrm, kit., d/r, den., sep. elect., heat/hotwtr incl. \$1,250/mo. Jo-seph, 516-903-2013.

MIDDLE ISLAND - 1 bdrm, Ig. bsmt apt., sep. drwy & entr., phone, cable, internet, strictly no smkg/pet quiet, all incl., 10 min to Lab, BNL employee only, avail. 9/1. \$920/mo. 672-2451.

MILLER PLACE - furn. colonial house, 10 mi. to BNL, prof. residential area, cac/ heat, cable, internet, own bdrm. responsible non smoker \$675/mo. 744-8386.

PORT JEFF - contemp. Victorian, 4 bdrm, great rm, 2 bath, eik, waterview, loft, fin. bsmt, pool & hot tub, walk to shops, + util., avail. Sept. 1 \$2,750/mo. 804-4662.

RIDGE – spacious 1br/1ba apt., bright /r, eik, priv. ent. & dr/way, 10 min to BNL, utils. & w/d incl., no smkg, \$1175/mo. 236-9114. ROCKY POINT - Lrg 1 bdrm bsmt, w/view LI Sound, kitch, full bath, /r, laundry rm, 7 mi to Lab. Microwv, tstr ovn, king bed, tv, dining table, beach, avail 9/1. \$850/mo.

SAINT JAMES - 1 bdrm. apt., I/r, Ig. kit., full bath, priv. ent., cable, all util. incl.

\$740/mo. 584-6827. SOUTH SETAUKET - Three Village School

4 bdrm. 2 bath, 9 rms. for 1 family, 5 min. to SUNY, 20 min. to Lab, util. not incl. ref/ crdt. chck req. \$1,900/mo. 885-2229.

ST. JAMES - 3 bdrm, 2 ba., l/r, d/r, eik, 55+ gated Fairfield cmmnity, pvt. deck, a/c, catv, updated appl,outdr/indr htd. pool, tnnis, clubhse, nr twn. \$2,000/mo. 584-3656.

For Sale

CALVERTON - 55+ comunity 6 yro ranch, 3 bdrm. 2 bath I/r eik. d/r., w/d rm., a/c Ig deck shed. house backs over 1300 sq. ft., excel. cond. 20 min. to Lab, \$179,000/ neg. James, Ext. 3277 or 369-6026.

MILLER PLACE - well maint'd Old Field Ranch, 3 bdrm, 1 full bath, I/r w/fp, Ander-

METAL WORKER MAINTENANCE A (LG-10) - Under minimum supervision constructs and installs a variety of metal equipment needed in plant maintenance such as sinks, gutter, ventilating hoods, stands, hangers, etc. Lays out own work, makes own patterns working from physical dimensions of building or works from prints, sketches or verbal instructions. Sets up and operates machine tools and tinsmithing machines, and also performs benchwork, in the fabrication and finishing of metal or associated products. Performs layout, preparation, measurement, assembly and installation. Performs necessary brazing, welding, and silver soldering incidental to the job. Makes own templates, sharpens tools, and performs maintenance incidental to operation of machines. Maintenance & Fabrication Services Division. Apply to Job ID # 14589.

BROWNING GUN SAFE - American Tradition - fire safe - mint cond., \$750, must sell, make offer! 807-9916.

CAT CARRIER - sm., 10"h x 10"w x 16"l, sturdy plastic w/handle, \$5. Ext. 4771.

CELLO - German-made instrument, 1950, excellent cond, hard case incl, \$4,700 firm. Stephen, Ext. 4475 or 929-3251.

FISH TANK - 30 gal., 13x17x93, glass, never used, \$30. Ext. 5437.

FREE SOLOFLEX - great cond. w/butterfly and leg atchmts, will deliver to the lab for pick up. Jeffrey, Ext. 2525.

HORSE STALL - conveniently locatd nr BNL, Cntr Aisle Barn, Indiv Turnout, plenty of trails, ring, \$550/mo. Ext. 5165.

JACK RUSSELL PUPS - M/F adorable, short & sweet Tricolor Health \$1,200. Linda, Ext. 5165.

SKATEBOARD - Ramp and Wave, \$50/ ea. Ext. 2716.

ZUCCHINI BREAD - Church fundraiser: homemade zucchini bread. Pat, 793-9178.

Free

FURNITURE, MISC - u-pic-up, futon, IKEA wdrobe, sewing mach., ent. cntr, computer desk, wardrobe, etc. Ext. 5843 or 926-5963.

Wanted

CERAMIC TILE SETTING EXPERT - to repair ceramic tile flr. in mud rm. 744-8386.

EUROS - Market value pd. to exchange your Euros. Ext. 5322.

INSTALL THRU-WALL A/C UNIT - Need someone to remove old unit and install new unit on 2nd floor. Will pay reasonable \$\$. Anna, Ext. 7132 or 793-4551.

NORDICTRACK - ski machine, gd. cond., reasonable price. Ext. 3054.

THE NEW YORKER MAGAZINE - July 21st Issue. Pam, Ext. 3097.

YANKEE TICKETS - wanted, at least 2 tickets to a Yankee home game before the end of August. Gerry, Ext. 5233.

sen wndws, .34/acr levl property, 1.5 car det. gar. w/elect., \$310,000/neg. 241-4166.

PORT JEFF STATION - 4 bdrm. Colonial, 3-Village SD, vinyl/brick, Minnesauke/ Gelinas, gar., Gunite igp, f/p, sunroom/jacuzzi, 1/3 acr, fen. yd., 2 sheds, new roof. \$500,000/neg. Ext. 2159 or 834-8255.

RIDGE - Colonial 4 bdrm. in great family neighborhood, 2 mi. to Lab, full finish. bsmt. w/ose, income potential, too many new options to list. \$472,500. 252-3356.

SHOREHAM - Middlecross Estates, 4 bdrm., 2.5 bath Col., formal I/r & d/r, den w/fp, Ig. kit. w/dinette, 2-car gar, fin. bsmt., igs, SWRSD, more. \$529,000/neg. Don, Ext. 2253 or 821-3320.

In Appreciation

Many thanks to my co-workers for their participation in and continued support of my son Keith's 5K Run/Walk; with your help, this year, nine scholarships were awarded in his memory to assist students with college studies. – The Nintzel Family

Bulletin

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