

80 Physicists From U.S. Attend ATLAS Computing, Physics Meeting

More than 80 physicists from all over the U.S. attended a U.S. ATLAS Computing and Physics meeting held at BNL from Wednesday to Friday, August 27-29. The workshop started with a software tutorial in what was possibly the largest such hands-on lesson ever held by ATLAS or BNL.

ATLAS (A Toroidal LHC Apparatus), is one of four experiments to be located at the Large Hadron Collider (LHC) now under construction near Geneva, in Switzerland and France. The LHC, due to begin operation in 2007, will be the world's highest energy accelerator and will collide beams of proton particles and beams of heavy ions, which are atoms stripped of electrons.

The main goal of ATLAS is to find the source of mass or, more technically, the reason for electroweak symmetry breaking. A BNL team headed by Howard Gordon, Physics Department, is well along in the design and fabrication of two ATLAS subdetectors. One is a

liquid-argon electromagnetic calorimeter that will measure the energy deposited by electron and photon particles; the other, cathode strip chambers that will measure muon particles that emerge in the forward direction from collisions. Also, BNL has ATLAS's Tier 1 com-

puting facility for the U.S.

One of the main goals of ATLAS is to look for a particle dubbed Higgs, which may be the source of mass for all matter. During the software tutorial, workshop participants learned, for example, how to use the ATLAS software to gen-

erate simulated Higgs events and analyze them.

The last two days of the workshop were spent in reviewing opportunities for U.S. physicists to participate in physics analysis and software development.

Said Gordon, "ATLAS has a huge physics discovery window, and, depending on what new physics exists, we could make a breakthrough finding during the first year of data-taking. This workshop is a step towards insuring that U.S. physicists will be ready for this exciting opportunity." — Liz Seubert

For more information about ATLAS, the workshop agenda, and the talks, see www.usatlas.bnl.gov/atlas_psc/news/first.html.



ATLAS software tutorial at BNL

Joseph Rubinio D0060903

Nine Brookhaven Scientists Awarded Tenure

Brookhaven Science Associates granted tenure on June 1 to nine Brookhaven scientists. They are: Mark Baker, Chemistry Department; Leslie Bland, Physics Department; Christopher Homes, Physics; Jean Logan, Chemistry; Ron Pindak, National Synchrotron Light Source Department; David Schlyer,

Chemistry; Subramanyam Swaminathan, Biology Department; Dejan Trbojevic, Collider-Accelerator Department; and Gene-Jack Wang, Medical Department. The Bulletin is featuring a description of the accomplishments of each of these tenured scientists over several weeks.

Subramanyam Swaminathan

Biophysicist Subramanyam Swaminathan has been awarded tenure in the Biology Department for significant contributions to the structure of complex protein toxins and for his creative contributions to structural biology methodology.

"Swaminathan has undertaken progressively difficult problems that are of fundamental significance for biology, medicine, and homeland defense," said Biology Department Chair Carl Anderson.

Since coming to BNL in 1997, Swaminathan has helped to decipher the overall structure and membrane-binding site on botulinum toxin, one of the deadliest biotoxins, and currently is investigating potential therapeutic agents to block its effects. He also

played a pivotal role in determining the structure of an outer surface protein of the bacterium that causes Lyme disease — research that contributed directly toward the development of a new generation of improved vaccines.

In addition, Swaminathan leads the Lab's collaboration in the National Institutes of Health's structural genomics initiative, which is designed to increase the

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Subramanyam Swaminathan

Roger Stoutenburg C98-36-01

Dejan Trbojevic

Based on the intellectual leadership that he demonstrated during the commissioning of the Relativistic Heavy Ion Collider (RHIC) and his internationally recognized contributions to accelerator design and development, Physicist Dejan Trbojevic was recommended for tenure by Derek Lowenstein, Collider-Accelerator Department Chair.

"Dejan has not only made a number of noteworthy and original contri-

butions to accelerator physics," says Lowenstein, "but he has also applied his breadth and depth of knowledge of accelerators in general and RHIC in particular to the design, commissioning and early running of RHIC, with the result that all were successful."

Trbojevic is given the main credit for developing what is called flexible momentum compaction lattice (FMC) and imaginary gamma-T lattices, ap-

proaches that provide superb control of the dispersion function, or available momentum aperture, of an accelerator beam. His FMC design, for instance, has been adopted for a 50-billion-electron-volt proton synchrotron now being built in Japan.

Trbojevic also co-designed a novel linear transition-jump method for RHIC, (cont'd on page 2)



Dejan Trbojevic

Roger Stoutenburg D0050803

386th Brookhaven Lecture, 9/17

'The Ten Most Beautiful Experiments in Physics'

The ten most beautiful experiments in physics is the theme of the first Brookhaven Lecture this fall. The talk will be given by Lab Historian Robert Crease, who is also a professor of philosophy at Stony Brook University. Crease will give the lecture in Berkner Hall on Wednesday, September 17, at 4 p.m., when he will be introduced by Physics Department Chair Samuel Aronson.

Crease, who has given nine previous Brookhaven Lectures, is departing from his usual subject, the history of BNL. His talk arose out of a monthly column he writes for *Physics World*, entitled "Critical Point." In an is-

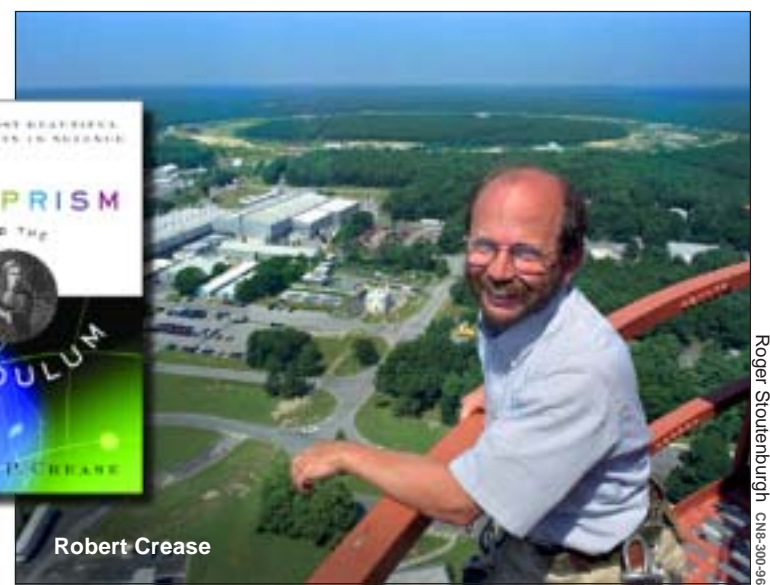
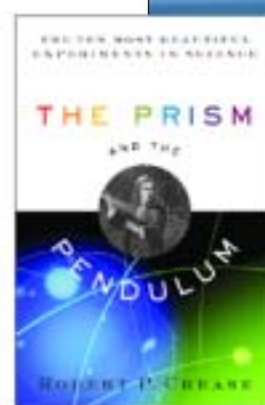
sue last year, he polled the readers of that magazine for their thoughts on the most beautiful physics experiment. He received over 300 replies and hundreds more from weblogs and internet discussion groups and counted up the experiments most frequently mentioned.

His subsequent article on the results of his poll, and the experiments in it, appeared in the September 2002 issue of *Physics World* and were picked up and emulated by a number of science journals, including a recent issue of *Chemical and Engineering News*. His article was also turned into a book, *The Prism and the Pendulum: The Ten Most*

Beautiful Experiments in Science, to be published by Random House at the end of this month.

The book was reviewed by Oliver Sacks, who says, "Science and scientists are so often seen as cold and emotionless, but they are passionately drawn to beauty and truth, no less intensely than artists or poets. One can open this book anywhere and get a sense of this special

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Robert Crease

Roger Stoutenburg C98-300-96

Retirement Counseling

A TIAA-CREF representative will visit BNL on Wednesday, September 17, and Friday, September 19, to answer employees' questions regarding the TIAA-CREF retirement plan, such as TIAA and CREF differences, allocating funds between TIAA and CREF, options, flexibilities with TIAA-CREF, and retirement options. For a 45-minute appointment, call Valerie James, (800) 842-2733, Ext. 7980 (not the Lab Ext. 7980).

Aqua Aerobics

All are welcome to join either or both of the eight-week Aqua Aerobics sessions that began on Tuesday, September 9, and Thursday, September 11. Both Tuesday and Thursday sessions run from 5:15 to 6:15 p.m. at the BNL swimming pool.

To attend once a week costs \$20, twice a week costs \$40. Pay at the pool or mail a check to BERA, care of Christine Carter, Quality of Life and Recreation Supervisor, Bldg. 179B. Payment for each session of eight classes must be made in advance, not weekly. Call Ext. 2873 for more information.

Jiu Jitsu Starts Today

Starting today, Friday, September 12, the BERA Jiu Jitsu Club will hold classes in the BNL Gym on Fridays, 6-7 p.m. Classes will be appropriate for all abilities, for men, women, and children ages six and up.

Classes will be pay as you go, at \$10 per lesson. Make checks payable to BERA, in care of Tom Baldwin, Ext. 4556.

BNL Toastmasters Invite Guests Humorous Speech Contest, 9/16

Who does not enjoy a good humorous talk? Guests are invited to observe and enjoy amusing short talks presented by Toastmasters at the BNL Toastmasters Humorous Speech Contest on Tuesday, September 16. The contest will be held in the Biology Building, Conference Room 160, beginning at 5:30 p.m.

In addition, there will be a "table topics" contest, in which contestants are challenged to give an impromptu response to a previously unannounced topic. These contests are held each fall by Toastmasters Clubs. Winners of both contests will go on to compete against winners from other Toastmasters Clubs in the area.

The BNL Toastmasters Club holds regular meetings twice a month, on the first and third Tuesday of the month, where members practice giving talks in a friendly and supportive environment. Guests are also invited to these meetings. For more information, call Nancy Manning, Ext. 5744.

New ITD Off-Site Network Access Service Now Available

The Information Technology Division (ITD) has been developing a new Virtual Private Network (VPN) service that will allow BNLers to access the Lab's network from home through Optimum Online and other Internet service providers. Using Cisco System's VPN client, employees will be able to work from home as they would on the internal BNL network, accomplishing tasks like reading Outlook mail (without using Outlook Web Access), reading and writing to their calendar, and accessing PeopleSoft functions. VPN service features a wide range of client support, including Windows, Linux, Apple OS X, and Sun SPARC Solaris.

The new VPN service will replace the current Intel Shiva product, used by many employees, which will no longer be supported by the vendor. Those currently using Shiva should find the new service easy to use, since it is very similar to the Shiva system. It is also easy to install, as the client software has been pre-configured for the typical user. Users with special configuration needs will find configuration to be simple and straightforward.

ITD encourages all current Shiva users to migrate to the new Cisco system as soon as possible. The Shiva unit will be removed from service by January 1, 2004, or sooner if the Shiva platform encounters any major problems.

A self-serve model for VPN client software distribution will be implemented shortly as well. Anyone wishing to obtain the Cisco VPN client software will need a LDAP user account, which can be obtained through the ITD Account Management Office, Ext. 4444.

For more information on the new VPN service, go to www.bnl.gov/cybersecurity/vpn.

BNL Well Represented at the 2003 JPMorganChase Corporate Challenge



On July 29th at exactly 7 p.m., the starter's horn went off and more than 90 BNL employees dashed across the starting line at Jones Beach State Park. This was the big time . . . the 3.5-mile JPMorganChase Corporate Challenge! Over 8,000 participants from 400-plus companies were at the beach for the largest race in Long Island history.

On the competitive side, BNL entered five teams of men and four teams of women.

Jim Marron, who organized BNL's entry into the event, reports, "Our top men's team, composed of Terry Sullivan, Dave Phillips, Don MacKay and Trevor Sears, placed fifth out of 148 men's teams. BNL's top women's team, consisting of Weimin Zhou, Karen Johnson, Diane Hatton, and Jennifer Schretzmayer, placed sixth out of 89 women's teams. Both top BNL teams are eligible to compete in the finals in New York City in October. We congratulate you all and wish you the best in October."

Marron explains that the Corporate Challenge also offered a less competitive category.

"Over 54 of our employees walked, jogged or ran in this category," he says. "Some ran a very respectable sub-ten-minute-mile pace over the 3.5-mile course. This group had the biggest smiles and the highest 'High 5s.' Many have already asked about next year, and are planning on training for the event."

The run and walk were over by about 8 p.m., but plenty of celebrating lay ahead for the BNL teams. Families and friends joined the athletes under the Lab corporate tent to enjoy hero sandwiches, salads, desserts, and assorted cold beverages.

"Lawn chairs and blankets were scattered everywhere as we mingled with members of other corporate teams and enjoyed the music from the nearby stage," says Marron. "To cap off a perfect evening, we were treated to one of the most beautiful sunsets imaginable."

If you did not join in the event this year; there is always next year. Save the date, says Marron: July 27, 2004.

For more information, check the JPMorganChase Corporate Challenge LI site at: <http://www.jpmmorganchasecc.com/03races/lis/lis/home03.htm>. BNL pictures (local intranet only) are at <http://bsd-sql/jelloshots/JPMCCC2003/index.htm>.

BNL Food Drive

Remember to bring cans of food for September's donation. Or send a check to: BNL Food Drive, care of Rita Kito, Bldg. 460, or Donna Wadman, Bldg. 129.

Money Talks Workshop Retirement Choices, 9/18

Changes in Social Security, additional choices, and the impact of inflation over time are just some of the factors to consider when evaluating or re-evaluating retirement plans.

To focus on steps to take today to ensure financial security during retirement, join TIAA-CREF at noon on Thursday, September 18, in Berkner Hall, for a mid-career workshop on retirement planning. Check your mailbox for registration forms.

Book Fair, 9/16 & 17

BERA invites the Lab community to visit the Books Are Fun Book Fair to be held in Berkner Hall on Tuesday and Wednesday, September 16 and 17, from 10 a.m. to 2 p.m. A wide selection of books at discount prices will be on sale.

BERA Softball Party, 9/25

All softball players and guests are invited (adults only please) to the annual BERA Softball League party, to be held 6-10 p.m. on Thursday, September 25, at the new building at the Inn at East Wind Caterers, Wading River.

Tickets cost \$25 per person for the first 100 paid softball players (you must be on a team roster) and \$40 thereafter for softball players and guests. Purchase tickets at the BERA Sales Office by Friday, September 19. If the minimum number of tickets has not been sold by 9/19, then the party will be cancelled and ticket money will be refunded. No tickets will be sold after 9/19, so buy early. For more information, e-mail softball@bnl.gov.

Bus to Storm King Art Center, 9/27

Join BERA on Saturday, September 27, for a bus trip to the Storm King Art Center and Sculpture Park, located in Mountainville, N.Y. and surrounded by the Hudson Highlands. Great art, fantastic views. Bring a picnic lunch as there are no food facilities, only vending machines. The bus will leave BNL at 10 a.m. and depart from Storm King at 4 p.m. Purchase tickets at \$12 per person at the BERA Sales Office. For more information, contact Christine Carter, Ext. 5090.

Air Show Tickets

The New York Air Show will be held Friday-Sunday, September 19-21, at the Calverton Airfield. Friday's carnival and fireworks start at 4 p.m. Admission is free with a \$5 parking fee. Tickets for Saturday and Sunday's air shows, which start at noon, are available at the BERA Sales Office, \$13 for adults and \$8 for children — \$2 off the gate price. The shows include an A-10 tactical demo, aerobatic teams, F-14 and other military aircraft, skydiving, and conclude with a carnival.

Calendar

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— WEEK OF 9/15 —

Tuesday, 9/16

BERA-Sponsored Book Fair
10 a.m.-2 p.m. Berkner lobby. Wide range of books, discount prices.
BNL Dance Club Individual & Couples, start of 2003-04 dance lessons
5-6, 6-7, 7-8, 8-9, 9-10, 10-11 p.m. North Ballroom, Brookhaven Center. With instructor Patti Panebianco. Ron Ondrovic, ondrovic@bnl.gov or Ext. 4553.

Wednesday, 9/17

BERA-Sponsored Book Fair
10 a.m.-2 p.m. Berkner lobby. Wide range of books, discount prices.
BNL Dance Club Group Instruction, start of 2003-04 dance lessons
6-7, 7-8, & 8-9 p.m. North Ballroom, Brookhaven Center. With instructors Mark James, Stephanie Falciano, Michael Pagan, Patti Panebianco, Marsha Belford, belford@bnl.gov or Ext. 5053. Register ASAP for series 1 (9/17-11/5) w/U.S. Theatrical Champion Mark James
• 6-7 p.m. INTRO Ballroom 101: lindy, swing, jive, W. Coast swing (2 wks. per dance, beginner) \$30/person/8 wks.
• 7-8 p.m. SYLLABUS mambo & merengue level III (4 wks. per dance, intermediate) \$35/person/8 wks.
• 8-9 p.m. TECHNIQUE International tango (8 weeks of one dance, intermediate) \$40/person/8 wks.
• 5-6 & 9-10 p.m. EXTRA HELP individual and couples instruction.

Thursday, 9/18

***Money Talks Workshop**
Noon, Berkner Hall. TIAA-CREF presents a mid-career workshop on retirement planning. See notice at left. Joyce Wund, Bldg. 185.

Sunday, 9/21

Rescheduled Ellis Island Bus Trip
Rescheduled for 9/21 after the power outage. \$39/adult, \$36/child (over age 5) incl. bus, ferry, tour. Bus leaves Brookhaven Ctr. 8:30 a.m., returns at 4:30 p.m. Pay at the BERA Sales Office.
***Bronx Zoo Bus Trip**
Hospitality Committee trip. See notice on page 2. Bus tickets: \$10/adults, \$5/children 2-12. Buy tickets on Tues. or Wed., 9/16 & 17, 10:30-11 a.m., Rec. Bldg. Monique de la Beij, mdelabey@optonline.net or phone 399-7656.

— WEEK OF 9/22 —

Monday, 9/22

IBEW Meeting
6 p.m. Knights of Columbus Hall, Railroad Ave., Patchogue. 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.
Mondays: BNL Dance Club Supervised Practice, start of 2003-04 sessions
6-7 p.m. North Ballroom, Brookhaven Center, except Lab holidays. Instruction by Mark James. Ron Ondrovic, ondrovic@bnl.gov or Ext. 4553.
Mondays: BNL Dance Club Individual & Couples, start of 2003-04 lessons
5-6, 7-8, 8-9, 9-10, 10-11 p.m. North Ballroom, Brookhaven Center, except Lab holidays. Instruction by Mark James. Ron Ondrovic, ondrovic@bnl.gov or Ext. 4553.
***BERA Softball Party**
6-10 p.m. The Inn at East Wind Caterers, Wading River. For details, see notice at left. No tickets sold after 9/19. For details, e-mail softball@bnl.gov.

Saturday, 9/27

***Bus Trip to Storm King Art Center**
\$12/person. 10 a.m. for Storm King Art & Sculpture Park, up the Hudson. See notice, left. Christine Carter, Ext. 5090.

— WEEK OF 9/29 —

Wednesday, 10/1

Money Talks Workshop: Estate Planning
5:30-7:30 p.m., Berkner Hall, Room B. Learn estate-planning principles from American Express Financial Advisors Inc. Check your mailbox for a registration form sent to all employees.

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.

