Japan’s Vice Minister of Education, Science, & Technology Visits BNL

The ongoing collaboration between BNL and Japanese institutions — RIKEN, KEK, and several university groups — was the focus of discussion between Lab Director Praveen Chaudhuri and Japan’s Vice Minister of Education, Science, and Technology (MEXT), Kisaburo Tokai, who visited BNL on Saturday, August 2. He was accompanied by the Director of MEXT’s Fusion Energy Office, Satoru Otake, and others in his entourage. The major contributions by Japanese scientists, including many Japanese postdocs and students, to the physics program at BNL’s Relativistic Heavy Ion Collider (RHIC) and the RIKEN BNL Research Center (RBRC) are among the advantages of this BNL-Japan collaboration.

The visitors toured the PHENIX detector at RHIC, where they met many Japanese physicists participating in this experiment, then viewed the RIKEN BNL QCD supercomputer in Bldg. 515. This supercomputer is optimized for advanced research into quantum chromodynamics, or QCD. QCD describes the theoretical model of matter based on the force known as the strong interaction — the force that binds quarks and gluons in the particles that make up the nuclei of all atoms. The computer, which won the Gordon Bell prize for computer cost effectiveness, has operated since 1998 with more than 97 percent up-time. It operates at 0.6 teraflops — a teraflop being 10 trillion floating point operations per second — and can be operated in tandem with Columbia University’s 0.4 teraflop supercomputer to give one teraflop of computing power.

The Minister and his group also saw one of the successful chips for the new QCDOC — QCD on a chip — computer being built by RIKEN, BNL, IBM, and Columbia. This 10-teraflop machine is expected to be completed in March 2004. — Liz Seubert

Nine Brookhaven Scientists Awarded Tenure

Brookhaven Science Associates (BSA) 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 Pinkak, National Synchrotron Light Source Department; David Schlyer, Chemistry; Subramanyam Swaminathan, Biology Department; Dejan Tihovjic, Collider-Accelerator Department; and Gene-Jack Wang, Medical Department.

As described in the Scientific Staff Manual, “a tenure appointment constitutes recognition of independent accomplishment of a high order in the performance of original research or of other intellectually creative activity appropriate to Laboratory purposes.” Recognition may be earned through significant contributions to knowledge related to the purposes of the Laboratory and/or in furtherance of the Laboratory’s aims, through continuing contributions of outstanding significance to productive uses of the facilities, or outstanding and creative contributions to their design, development, and improvement.

The Bulletin will feature a description of the accomplishments of each of the recent tenured scientists over the next few weeks.

Christopher Homes

Of his world-class infrared spectroscopy studies of correlated electron materials, Physicist Christopher Homes has been awarded tenure in the Physics Department. Known for developing innovative instrumentation and techniques, taking on challenging experimental problems, and producing experimental work of the very highest quality, “Homes has made outstanding contributions to our understanding of a variety of strongly correlated systems, including high-temperature (T) superconductors and the recently discovered high dielectric constant materials,” said Physicist Chair Samuel Aronson.

Homes’ most important contribution was in developing the microreflectance technique for measuring optical conductivity in small samples — a technique now regarded as the standard approach for determining absolute reflectance regardless of the sample shape or size. Applying the microreflectance technique, Homes and his coworkers demonstrated the optical pseudogap in one form of high-T superconductor — a discovery regarded as one of the most important in the field of superconductivity and still at the center of various attempts to explain the origins of high-T superconductivity. Other studies by Homes and his coworkers have postulated a mechanism responsible for the class of materials’ unusually high dielectric constant, a property that makes these materials potentially attractive for the design of smaller, faster electronic devices.

“These studies and the facilities developed by Homes represent an exciting and important part of Brookhaven’s overall effort in Condensed Matter Physics,” Aronson said. “Granting Homes tenure will keep this group in the forefront of both infrared spectroscopy and photonic spectroscopy, making it one of the leading electron spectroscopy groups in the world.”

Homes received his Ph.D. in physics from the University of British Columbia, Vancouver, in 1990. He held two postdoctoral positions, first at McMaster University and then at Simon Fraser University, where he then held a research and teaching position starting in 1994. He joined Brookhaven’s Physics Department in 1996 as an Assistant Physicist. He was promoted to Associate Physicist in 1998 and to Physicist in 2001.

Jean Logan

Based on the enormous impact of her original contributions to the development of kinetic models in the field of neuroimaging and neuroscience and her sustained contribution to data analysis for the Brookhaven Positron Emission Tomography (PET) program,” former Chemistry Department Chair Jan Hrbek recommended Jean Logan, Chemist, for tenure.

PET is a medical imaging method that can measure the concentration and movement of radiotracers — positron-emitting isotopes — in living tissue. Over the last twenty years, the BNL PET Program has gained international recognition for studies in human addiction, brain aging and degeneration, and drug research and development. Logan developed a graphical analysis method to interpret PET data that is used by virtually every PET research facility throughout the world.

According to Logan, the amount of radiotracer uptake by living tissues is controlled by numerous factors, including the number of available receptor binding sites in living tissue. In order to separate the receptor information from other factors that influence uptake, mathematical equations, known as kinetic models, must be applied to PET image data. The models describe the uptake and loss of the radiotracer over the course of an experiment. Logan’s graphical analysis method transforms a general set of model equations into a linear plot, the slope of which is related to the number of tissue-bound sites. It is an important tool for researchers, since it allows them to interpret data without solving complex mathematical equations.

(continued on page 2)
ESOL Celebrates Successful Program

On June 27, the English for Speakers of Other Languages (ESOL) program held an afternoon celebration at the Brookhaven Center to express "A World of Thanks" to all who contributed to the program. ESOL, part of the Quality of Life Program in the staff Services Division, gives free classes to its register users, guests, employees and spouses with their English skills. ESOL Program coordinator Jennifer Lynch welcomed attendees and gave an overview of the program and how it has developed, now providing ten classes for a greatly increased student body. "It is easy for those of us who speak English to take daily communications for granted and not realize how intimidating normal activities, like going to the store, can be for those who aren't yet comfortable with our difficult language," said Lynch, a certified ESL specialist with MA in ESOL. Lynch introduced BNI Director Pravender Chaudhry, who spoke about some of his own experiences when coming to this country from India. Lynch also introduced Tommy Sheridan, BNI Deputy Director for Operations, and Brian Sack, Assistant Director for Finance & Administration. Both expressed their admiration for BERA's program and its importance in helping draw together the Lab's international community.

Certificates of appreciation were distributed to ESOL instructors and Literacy Volunteers of America tutors Heiga Guthy, James Higgins, Samantha Lin, Deepali Mitra, and Linda Satolino. Vonda Ashley, a Patchogue-Medford Adult Literacy Consortium team member, was unable to attend. The success of these tutors was demonstrated by five of their students, who, as they were granted Certificates of Achievement on their advancement in the program, each talked about the ESOL Program and how much it has helped them with daily activities. "I knew no English one year ago," said Lingyan Zhou, from China. "Our teachers gave us confidence and boundless support from other countries." Metrong Wang said that through what he learned at ESOL, he was able to take an active role in the Hospitality Committee's Cooking Club. "And the Club makes our Lab more colorful and more delicious!" she said.

Students Elizabeth Guzman, Mida Song, and Kyoko Sugihara, also among those who received certificates, all agreed that they had learned English, made friends, and understood more about not only U.S. culture, but also the cultures of the other students' countries, through the ESOL Program. The event ended with a surprise performance by ESOL student Ying Chang, who sang "Yesterday Once More", originally sung by the Carpenters. Lastly, attendees enjoyed a cake provided by the Lab's caterers, FLK, inscribed with "A World of Thanks." It was "a truly memorable event," concluded Lynch.

Note: The ESOL program provides free classes in English for all levels of the language and organizes field trips and other events. For more information or to join classes, e-mail esol@bnl.gov.

Jean Logan (cont'd.)

Hreb added that Logan uses her method to perform all of the data analysis for the PET program, and she developed the method to help analyze kinetic data for different radionuclides. Further, he credited Logan with bringing "sustained recognition to the PET program and to BNL." Logan earned a Ph.D. from Louisiana State University. She joined BNL as a research associate in the Chemistry Department, and, in 1986, she joined the PET program as a chemical assistant. She was promoted to associate chemist in 1989, and to chemist in 1994.

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Arrivals & Departures

Arrivals

John Rowan

Departures

Stephen Gushue

NNS

Swim More, 8/25-29

During the week of August 25-29, the BNI Swimming Pool will be open all afternoon for BNI families, guests, and visitors, in addition to normal opening hours. The schedule during that week will be:

Employee Lap Swimming

11 a.m.-2 p.m.

BNI families, guests, visitors

2-8:30 p.m.

The Friday Night family swim will be held as usual, charging $5 per family, 8:30-10 p.m.

For more information on facilities, fees, events, and BERA trips, go to www.bnl.gov/BEERA.
Classified Advertisements

THROW PILLOWS & TABLECLOTHS - 2 sq., mcm brown, pole, 10 rais. 5. East, Ext. 731-1843.

Televisions - House & Hotel

Cyclotrons Motorcycle Club Family Picnic

The Cyclotrons, BNL's motorcycle club, invite all club members, their families, and friends who have an interest in motorcycles, to their 6th annual family picnic, to be held on September 6th, rain or shine.

Ticket prices:
- $25 per adult
- $5 per child
- $5 for non-club members

Buy tickets from Frank Dusek, Ext. 2022; Charles Gardner, Ext. 5214; or Frank Cetron, Ext. 2012.

The Onpunkt Nursery School, a small, cooperative nursery school run by the parents, will begin on Tuesday, September 2. The nursery school is open to children of all Lab employees whose children are ages 3 to 4 or who will be 3 by December 1, 2003. Classes are given on Tuesday mornings, 9:30 a.m. to 12 noon, in the area of the office. Two experienced teachers, one with New York State certification and both with baccalaureate degrees. The curriculum includes pre-kindergarten topics with a focus on language and social skills in a warm, fun, pressure-free environment.

For more information or to obtain a registration form, go to www.bnl/nurseryschool, or contact Cathy Lavale, 369-3088 or lavale@cbnets.llnl.gov.

Donate New School SUPplies

During August, BREA is sponsoring a school-supply drive to help local children, by collecting and donating pens, pencils, binders, and other school supplies, to the literacy programs. The school has always had children from many different countries which makes the program an exciting cultural experience.

For more information on how to obtain or to donate school supplies, go to www.bnl/nurseryschool, or contact Cathy Lavale, 369-3088 or lavale@cbnets.llnl.gov.

Registration Open at Onpunkt Nursery School

Calendar

September 18 (conf'd.)

* BREA Bridge Club
7 p.m., Brookhaven Center, Morris Ave., Bethpage.

September 19

Bus Trip to the Cradle of Aviation
depart the Bus, 7:15 p.m. and 8:30 p.m. No tour, all adult prices, 15% for children 21 and older. To 200 kids for all tours. Inquire at the Cradle of Aviation, a virtual reality experience, to join in the fun. For more information about the Cradle of Aviation/ Museum, contact group reservations cradleaviation.org.

Sunday, 8/24

Summer Tour Sunday
9 a.m. - 3 p.m. Tour features BNL's Emergency Services and Plant Ingeni-

eering. To go to bnl.gov/ehs/institute/ 

August 15, 2003

The Bulletin

Auction of 35 Vehicles

The Government Services Administration will offer 35 motor vehicles, located at warehouse 7-8, for public auction on August 27. The auction will begin at 10 a.m. and will last for approximately seven days, during which time anyone may bid on the vehicles. Pictures of each vehicle with pertinent information will be placed in the US. Gov't. To inspect the vehicles, see Jerry Quigley, Ext. 4527.

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Vehicle & Motor Supplies

30 BALL MARKER - Hawaii, 5 x 3 trans- port cart, ask, $125.00. Citrus, Ext. 5722-7785.

20 HONDA SHADOW 750 3TV - 4 cyl. seat, sun visor, black, ask, $2,000. John, Ext. 8247-7729.

10 VOLKSWAGEN PASSAT 220 - excel. cond., excellent, ask, $1,495.00. Eric, ask all condition, 75015 or 772-2069.

10 FORD TAURUS - silver, 3.0L, 54k mi., ask, $6,500 or best offer. Joe, Ext. 7524-7729.

94 TOYOTA PICKUP - SuperElec, 40k mi., ask, $1,100. John, Ext. 7591-7785.