

American Physical Society New York State Section



Newsletter

Editor's Foreword

This is the first Newsletter of the NYSS since this section came into existence in 1938. Its purpose is to provide information and communicate physics related events and current New York State (NYS) affairs that would be particularly interesting to local members. In this inaugural issue, the section on history, governance, statement from the chair, followed by detailed information on physics outreach programs & awards, and an informative report on the Regents Exam, will provide you with an overview of our NYSS and its activities. The section on "Physics Highlights and News in NYS" includes the latest on "g-2", a brief on "Teraflop Lattice QCD Calculations" by Nobel laureate T. D. Lee and more. In the "NYS Prize Winners" section we list the information received on physics prizes. Our congratulations go to Ray Davis for winning the 2002 Nobel Prize in Physics and his co-laureates. Section 7 includes the current and upcoming symposia and meeting schedules with the editor's emphasis on the Conference "Intersections of Particle and Nuclear Physics, (CIPANP2003)" to be held in New York City, May 19-24, 2003; and the NYSS Fall 2003 symposium on "Particle Accelerator Frontiers and New Physics Potential" to be held at the Brookhaven National Laboratory, Oct. 17-18, 2003. A list of NYSS Executive Committee members, a site map of previous Symposia and photos from the Fall 2002 NYSS-APS Symposium are also given.

We would appreciate getting feedback from our readers, including input on additional areas/fields of physics that we can cover in our future issues. We would also encourage some of you (please let us know) to participate as "visiting editor(s)" in your specific field(s) of physics, to assist us in covering more areas of physics. Physics topics and news included here illustrate the types of information you can send to us to be included in the upcoming issues of the NYSS Newsletter.

We need your input and look forward to receiving your comments, suggestions, physics highlights, news, and/or other information you consider important and would make this newsletter more informative and interesting to you. Please send all information to the editor at the address given below:

—Dr. Zohreh Parsa
Physics Department 510 A,
Brookhaven National Laboratory
Upton, New York 11973-5000
Send e-mail to: nysaps@bnl.gov

Section History

The New York State Section of the American Physical Society had its founding meeting on April 2, 1938 at Union College. There were about 150 people present (with 83 paying dues!) and the State Section had 104 Charter members. Included in the program were talks on Television Transmission (recently first broadcasted in Schenectady; E.H.B. Bartelick, GE), Biological Effects of Cathode Ray Irradiation (C.P. Haskins, Union), Recent Developments in Glass Manufacturing (H.P. Gage, Corning Glass), Physics in Aeronautical Sciences (P.E. Hemke, RPI), Electron Optics (R.P. Johnson, GE), and Demonstration of the Antiphonal Organ (J.B. Taylor and T. Sharpe). There were also exhibits on Molecular Films, Spectrometers, Lighting, and some early rare books on physics.

In November of the year before the first meeting of the Physics Association of Upper New York State had been held with Peter Wold of Union College presiding and about 150 in attendance. Representation at the meeting included about 40% from industry, 40% from Colleges/Universities and 20% high school teachers. The meeting was called with the notion of the group becoming an APS affiliated section and approval came by the following March, just in time for the Second Physics Association of Upper New York State meeting to turn into the inaugural meeting of the NYSS of the APS.

Since then the NYSS has continuously held fall and spring meetings each year (with only one meeting in the war years '44 and '45) with a broad array of topics held at college/university and industrial sites across the state. Early strong

cont. on page 7

In this issue:

- History Section
- Governance Section
- From the Chair
- FOR STUDENT & SCIENCE TEACHERS
- Physics Highlights and News in NYSS
- NYSS Recent and UPCOMING SYMPOSIA
- OTHER MEETINGS in NYS



Section Governance

Exactly what is the structure of the New York State Section? Who is enabled to make decisions or spend money? What is our relationship to the national APS? These are the kinds of issues addressed in the NYSS Bylaws, which are in the process of amendment and ratification.

The first few articles of the bylaws give simple statements of our name, objective, enabling APS legislation and membership requirements. As with the national APS, our goals are the “advancement and diffusion of knowledge of physics” which are most evident in our outreach program and semiannual topical symposia. The last several articles are also rather straightforward and deal with issues of dues, newsletter (such as this one!), and announcements to members, and procedures to make amendments.

The middle section of the bylaws gives the structure of governance. As a brief summary, the Section is run by an Executive Committee, which consists of the officers (chair, vice-chair and secretary/treasurer), twelve “at-large” members, and liaison(s) to APS. The bylaws detail the duties of these positions, how and when they are elected, and their roles in appointed committees and setting up Section meetings.

As with any subsidiary, the bylaws of NYSS cannot be contrary to those of APS. Just as municipal ordinances that are in conflict with state constitutions can be removed by state courts, so too our NYSS bylaws have to pass through a legal review by APS Council.

Two major shifts, one in technology and one in the democratic structure of APS, have compelled NYSS to revise its bylaws and have the changes ratified by the NYSS membership. The first is the advent of e-mail and electronic balloting, which should greatly enhance participation in future NYSS elections. Our old bylaws specified the vote to be carried out by mail (postal service), so they had to be modified to allow for the newer mode of casting votes. Of course the ratification of this change still has to be carried out with paper ballots!

The second change involves NYSS representation on the APS Council, which is the overall governing body of the Society. Until recently, Sections, such as NYSS, had “observer” status, but no vote on Council. A recent restructuring of Council afforded the Sections the opportunity to assert their unique point of view on APS matters and secure voting privileges. But there are too many Sections to each have a vote. Therefore, an interlocking, rotating scheme has been set up so that two of the Sections have voting Councilors with terms of office being four years. NYSS assumes a voting role in 2003. The larger Sections, of which we are one, can also continue to have a member attend Council meetings in an observer role.

Now this posed a problem for the NYSS bylaw structure. Under the present rules one is elected to be Vice-Chair, after two years becoming Chair, and after two more years becoming

Council Observer for two final years. We have had to modify the bylaws so that when it is the turn of NYSS to have a four-year voting term on Council that the exiting Chair naturally takes on that role. In those years we also need an additional Council Observer.

The legal staff of APS had certified the proposed bylaws and the APS Council unanimously approved them at the Council meeting in April in Albuquerque. Now it is the turn of the membership to ratify them and therefore put them in place. So, please read them over (www.aps.org/NYSS/other.html) I am sure you will learn a thing or two you didn't know about NYSS!

–Richard Galik, Council Advisor

From the Chair

A sincere and warm welcome to our first Newsletter! In these brief introductory remarks, I would like to tell you about what the New York State Section of the American Physical Society is and does, and how you can join it if you are not already a member.

The NYSS with its 1,900 members, mostly residing in New York State, adjacent States and Canada, is one of the largest State Sections of APS. An APS member, regardless of his or her own work location, can join the Section at no cost. The easiest way to do it is to check the appropriate box in the renewal invoice that APS sends out to members. Alternatively, you can contact APS through the Web site.

The Section has a long tradition of providing its members (undergraduate and graduate students, teachers at colleges and universities, and scientists in private and government laboratories) with venues to meet and discuss topics in physics. Through the organization of semiannual symposia, the Section provides high quality tutorials in current topics in physics and related interdisciplinary scientific subjects. In these symposia, experts are invited to present and discuss the latest developments in their fields. A poster session at these symposia allows members to present their work and discuss it with colleagues from all over the State. Because New York State has a considerable number of higher learning institutions, from two-year community colleges to large research universities, and government and industrial labs, these meetings attract a good number of members, providing an opportunity for interesting and enriching experiences. I am very pleased with the increasing number of undergraduate and graduate students who have been attending these Symposia lately. A banquet and an engaging and often witty after-dinner speaker make attending these meetings an enjoyable experience.

Recently, our Section has decided to play a more active role in fostering the awareness of physics among the general public through its Outreach Program. Twice a year, the Section

cont. on page 7

For Students and Teachers

Physics Outreach Grants for students:

The New York State Section has an active involvement in primary and secondary education in the region. A number of outreach proposals have been submitted, several of which have been granted, for various activities that bring physics into the classroom, as well as bringing students into university research facilities. NYSS provides seed money for projects intended to bring physics-related learning experiences to the general public, and in particular to K through 12 students. Proposals will be accepted from individuals who intend to carry out educational activities within the area served by the NYSS-APS. The targeted audience must be located in New York or contiguous states/provinces. Undergraduate and graduate students are particularly encouraged to submit proposals. One of the proposers must have a current or prior affiliation with an institution of higher education, a New York State-based industrial R&D center, or not-for-profit educational organization. Two awards of up to \$1,000 each will be available each funding cycle to cover eligible expenses. An additional \$200 may be granted to each individual/group for personal expenses.

Proposals must include:

- (1) A completed grant application form with all signatures.
- (2) A project summary suitable for posting on the Outreach web site.
- (3) A two page (maximum) narrative that includes:
 - (a) planned activities;
 - (b) targeted audience/grade level(s);
 - (c) a statement of how the planned activities will increase the awareness of physics topics among the general population and/or facilitate/encourage the study of physics among K-12 students;
 - (d) the names of those who will plan and carry out the activities;
 - (e) a timeline;
- (4) An itemized budget detailing the use of requested funds and any “matching” funds. Include the source of the matching funds as well as the amount and purpose.

Proposals may be submitted each year to the chair of the outreach committee or the Secretary of the NYSS-APS (see contact information below) by March 1 for the spring award cycle or October 1 for the fall award cycle. Grants will be awarded at the Spring and Fall NYSS-APS meetings, which are held typically in April and October, respectively.

The primary criterion for judging used by the committee is the potential positive impact on educating the general public (and K-12 students in particular) about physics-related topics. Evidence of plans to disseminate information about the project especially preparation of materials for distribution is particularly encouraged. Expenses for supplies, equipment, printing, computing costs and local travel costs are all eligible; no salaries or overhead (indirect costs) can be charged. Proposals where in-kind costs are shown to be borne by other

parties (proposer’s academic institution, beneficiary elementary or secondary school, etc.) will be given preference, everything else being equal.

A short report that describes the activities and accomplishments and includes the final accounting is required by June 1 or January 1 of the following year for grants awarded at the previous April or October meeting, respectively. The report should be submitted to the chair of the Outreach committee.

For full instructions, and application form see <http://www.aps.org/NYSS> or contact Stacie Nunes (E-mail: nuness@newpaltz.edu) and/or Lawrence Josbeno (E-mail: josbenlj@corning-cc.edu).

Quarknet Outreach in New York State

The NSF/DOE sponsored QUARKNET program is a particle physics outreach program that involves over 40 institutions nationwide including Brookhaven National Laboratory. We have organized summer workshops for Physics Teachers that are composed of lectures and hands on experiments. The lectures introduce participants to the Standard Model of Particles and current topics in the field of High Energy Physics. Example of lectures in recent years included discussions on g-2, neutrino physics and search for the Higgs. The hands on experiments are designed to expose Teachers to techniques used to detect particles. Example of hands on experiment were to count cosmic rays using detectors built by the participants. Some other experiments addresses the measurement of the muon lifetime, the cloud chamber and ratio q/m of the electron. The program at BNL is in its 3rd year and we are now at the point that experiments can be introduced in the classroom. Teachers participating in the program are helping to develop simple experiments that students can perform in the classroom and the corresponding educational material. Some of the teachers are also helping in the development of the RHIC on-line classroom being developed by the BNL Office of Education. The BNL and Stony Brook QuarkNet group have also sponsored a one day Long Island Physics Teacher’s meeting that had as a theme the Standard Model, now part of the Regents curriculum.

–Helio Takai,
Brookhaven Nat’l Lab and QuarkNet Program

Acknowledgments

Our thanks to those of you who assisted and provided information and contributions for this Newsletter. We acknowledge Gianfranco Vitali’s interest and support of this Newsletter. The photos were provided courtesy of BNL, Syracuse University, and (site Map) Don Miller of Cornell University.

Recent NYSS Outreach Awards:

2002 - Fall Awards (4):

- ◆ **Dan Allan**, Corning East High School, Corning, New York, to purchase equipment for "Elementary and Middle School Physics Shows".
- ◆ **Bruce Burkiet**, New Jersey Institute of Technology, to cover the cost of prizes for NJIT's "Mathematical and Physical Sciences Workshop for High School Students and Teachers".
- ◆ **Adam Harrington**, University of Rochester, for the materials and labor costs associated with "Particle Physics in Classrooms", demonstrations to be presented in High Schools.
- ◆ **Janie Schwab**, Dudley Observatory, Schenectady, New York, for equipment and supplies, for the "Rising Star Internships" program.

Two other requests were considered and they were encouraged to address the concerns of the Committee and apply again at another time.

2001 - Spring Awards (4):

- ◆ **Scott Lenhart**, North Salem High School—Lego Robots for Physics Experiments.
- ◆ **Richard Brown**, Milton Cole and Carla Zembal-Saul, Penn State - Database In Physical Science For Elementary Teachers.
- ◆ **Victor Lu**, Deli Liu and G.-C. Wang, RPI - Student Testimonials.
- ◆ **Peter Wanderer**, Peter Takacs and Lawrence Oxman, Long Island Science Center - Exhibit on the History of the Universe.

2001 - Fall Awards (5):

- ◆ **Charles Black**, IBM T.J. Watson Research Center — "Physics All Around Us".
- ◆ **Allen Miller**, Sam Sampere and Carl Preske, Syracuse University— "Workshop on the Modeling Approach".
- ◆ **Bruce Bukiet and Gordon Thomas**, NJ Institute of Technology— "Mathematical and Physical Sciences Workshop for High School Students and Teachers".
- ◆ **Milton W. Cole and Carla Zembal-Saul**, Penn State University— "Air and Aviation Unit Enhancement"
- ◆ **Nicolle Zellner, Heidi Newberg and Patricia Munsell**, Rensselaer Polytechnic Institute "Public Observing at Hirsch Observatory".

Student Grants to Assist Attendance to NYSS Symposia:

The NYSS makes awards to students to defray their travel and accommodation expenses and attendance at the symposium banquet. These awards are a maximum of \$50 per student (at this time).

Guidelines:

1. Students in Physics Departments within the state of New York or its contiguous states and provinces are invited to apply for a grant to attend the next symposium.
2. The "application" consists of a brief paragraph telling how large a grant will be requested and how the funds will be spent. It is expected that each supported student will attend both Friday and Saturday sessions and the symposium banquet, which is usually Friday evening. All student banquet tickets are half price.
3. Applications must be signed by the student and the Department Chair. For e-mail applications, the student should send his/her application paragraph to the Department Chair, who will forward it to the NYSS representative (see address below). The e-mail "From" addresses will constitute signatures.
4. One application can be made for several students, but the name and mailing address of each student must appear within it.
5. The symposia are appropriate for advanced undergraduates as well as graduate students. The NYSS representative will consider each application on its relative merits and will not have quotas with respect to the student's state of advancement.
6. Grants, not to exceed \$50 per student, will be mailed directly to the student(s) by the APS after verification of attendance.
7. All students are exempt from the registration fee.
8. Send questions by e-mail to Jim Hannon jbhannon@us.ibm.com.
9. For additional information/ updates see <http://www.aps.org/NYSS/> (under construction).

The Regents Exam

The June 18, 2002 administration of the Physical Setting/ Physics examination created several concerns among Physics Teachers about the results of the scoring of the examinations.

From anecdotal reports across the State, the results on this examination will seriously affect the enrollment in Physics classes. According to Core Curriculum Guide writers one of the goals established was to adjust the curriculum in Physics so that a course could be offered which would encourage more

students to enroll. Conversations with parents and Guidance counselors have indicated that students and parents are asking that their child's schedule be changed, eliminating Physics. This is by far the most damaging result of this situation. Also, it should be noted that even though a credit in Physics is not a requirement for graduation under the new graduation requirements, some students enrolled this year needed the Regent's credit to earn a Regent's diploma, as is the case every year. Related to this is the fact that teachers have been told for several years by representatives of the State Education Department that any Physical Setting course can be taken by any student, at any grade level, to meet the graduation requirement. It may not be possible to reverse this trend away from taking a Physics course for several years.

Many of the high school teachers have expressed trepidation due to the significant decline in acceptable results throughout the State. From first reports, many districts are indicating that the percentage of students passing the examination is down from 5% to 60% or more. This is occurring in districts with very experienced teachers and in districts with teachers having far less experience. Many feel that this may be an indication that the examination did not follow the guidelines established by the State with respect to the types of questions and their placement in the examination; specifically, questions of too great a difficulty level are being placed in Part A, and that a reevaluation of the difficulty level of the questions is warranted.

And finally, there is dismay at reports that put the blame for the poor results on this examination on the lack of

cont. on page 7

Physics Highlights and News in New York State

Muon $g - 2$:

Measurements of magnetic moments of elementary particles during the late great century often pointed towards new physics. The magnetic moment is proportional to the particle's charge, spin, and inversely proportional to the mass, with a proportionality constant called g , which contains all the interesting physics. Paul Dirac around 1930, combined quantum mechanics with relativity and predicted $g=2$ for a point particle. Measurements of the electron were consistent with two, but the proton g factor was measured to be 5.8! Even more troubling: the neutron g factor was measured to be -3.8. This was finally explained by the quark model in the 1960s, which predicted $g^p/g^n = -1.5$. Oppenheimer and others tried to calculate the first order correction to $g=2$ in the 1930s, and got infinity! In 1947, the g value of the electron was measured more precisely, and found to be 2.002. Given the answer, the theorist were able to calculate this as α/π , and Quantum Electrodynamics was born! The race was on to see whether the theorists could calculate with better accuracy than the experimentalist could measure. The latest in this contest (the contest is actually between the experimentalists and the theorists vs. nature) comes in the g value of the muon being

measured at Brookhaven National Lab (E821). What is a muon? We really don't know. It seems to be a heavy version of the electron, but there must be more to it than that. When Rabi was informed of the discovery of the muon, he said, "Who ordered that!" The muon is about two hundred times heavier than the electron, and decays in 2 microseconds to an electron and two neutrinos. The penultimate E821 result differed from the standard model theory by 2.6 sigma. Maybe this means there is more physics in the muon than we're putting in! However, after the theorists triple checked their arithmetic, they found an error, which made the disagreement a more modest 1.6 sigma. The latest E821 measurement, which comes from examining four billion muons decays, has an accuracy in the g value of better than one part in a billion. The standard model theoretical accuracy is similar. The difference was back up to 2.6 sigma. However, there seems to be some inconsistencies in the theoretical inputs, which actually come from experimental data on electron anti-electron annihilations and tau (which is a heavy version of the muon) decays, which are being checked. That's the present status - we still don't know. But one thing I can definitely tell you: doing physics is a blast.

— William Morse, E821
residence spokesperson

Teraflop Lattice QCD Calculations:

The RIKEN BNL Columbia lattice gauge theory collaboration has recently successfully completed a set of technically difficult and numerically intensive Standard Model calculations of the violation of charge parity invariance in the decay of neutral K meson particles. This CP violation was first observed in the 1964 BNL AGS experiment for which Cronin and Fitch were awarded the 1980 Nobel Prize in Physics. These theoretical lattice calculations were made possible by the RIKEN BNL Research Center (RBRC) 0.6 Teraflop lattice gauge supercomputer QCDSF (QCD on a signal processor) and its prototype, the Columbia University 0.4 Teraflop QCDSF. The lattice collaboration has recently also made very promising advances in a technique known as domain wall fermions, which allows chiral symmetry to be maintained in QCD lattice gauge theory.

The next generation massively parallel computer QCDOC (QCD On a Chip) of RBRC will provide ten teraflop peak performance for these lattice gauge calculations. The QCDOC has been jointly designed by lattice groups at Columbia University and RBRC with IBM assistance. RIKEN in Japan has provided funding to complete the machine in 2003. Computer resources will thus be increased an order of magnitude, making possible even more precise calculations of CP violation, as well as theoretical lattice QCD investigations of such topics as the light hadron spectrum, finite temperature QCD (related to the RHIC heavy ion program), and the structure of the proton (related to the RHIC spin program).

— T. D. Lee
Professor, Columbia University Director,
RIKEN BNL Research Center

RSVP and the MECO Experiment:

The proponents of the RSVP proposal before the National Science Foundation have been moving forward to complete the design of a novel superconducting magnetic spectrometer and to develop the detectors required for two high-energy physics experiments at the Brookhaven National Laboratory. RSVP is an acronym for “Rare Symmetry Violating Processes.” Each of the two experiments will study a process that violates a basic symmetry law of physics. The development and design work on RSVP is being supported by the NSF, which will begin providing funding for construction of the experiments and particle beams in the next fiscal year, if all goes according to plan. RSVP has been reviewed extensively and judged ready to go. It has the enthusiastic support of the National Science Board, and the High Energy Physics Advisory Panel, HEPAP, that advises the Department of Energy and the National Science Foundation considers it an important element in its program. It has generated interest abroad; financial and technical support from international collaborators will be forthcoming once the go ahead is given.

One of the experiments will study charge-parity (CP), or matter-antimatter, symmetry. In 1964, physicists discovered that in the decay of an elementary particle called the kaon, CP symmetry is not respected in a tiny percentage, 0.3%, of the decays. Particle physicists have ever since been trying to find other manifestations of this phenomenon. Today, most physicists believe that this tiny matter-antimatter asymmetry is the very reason we are here, why our matter universe survived the early, radiation dominated, stage of the universe. This experiment of the RSVP proposal will observe this asymmetry in a very rare process that tests the Standard Model of Particle Physics.

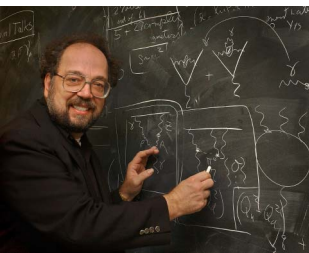
The other experiment proposed, MECO, is a search for (m)uon to (e)lectron (co)nversion in the field of a nucleus, $\mu + N \rightarrow e + N$. In the Standard Model, the matter that we are made of and study in the chemistry laboratory consists of the electron and two species of quarks, labeled up and down and found inside protons and neutrons. To these three fundamental constituents of matter is added the neutrino. This small family of particles, plus those that mediate the forces, e.g., the familiar photon, are all that are needed to describe the matter of our everyday world. Experiments in particle physics have found, however, that there is not one but three such families, each with its own up and down quarks, neutrinos and electrons. The electrons of the second and third families are called the muon and tau respectively. Collectively, the electron, muon and tau and their neutrino partners are called leptons. In addition to the law of conservation of electric charge and the color conservation laws of the strong force, which are related to local gauge symmetries, there are in the Standard Model four exact global symmetries, each with its own conserved quantum number. Baryon number is one of these and the remaining three are the lepton numbers associated with the electron, the muon, and the tau. In just about every extension of the Standard Model, protons decay to mesons and leptons, violating the law of baryon number conservation, neutrinos, if massive, mix, violating the law of lepton flavor conservation—a process that has now been observed, and taus and muons convert to lower mass leptons without the emission of neutrinos, again resulting in lepton number non-conservation. The MECO experiment is designed to observe muon to electron conversion even if only one in 10^{16} muons makes the transition, surpassing in sensitivity previous experiments by four orders of magnitude.

—John Sculli, Professor, New York University

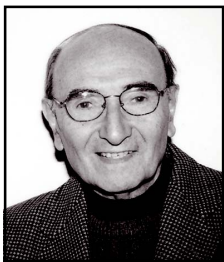
For additional information see <http://mecop.ps.uci.edu>, and www.bnl.gov/rsvp

NYS Prize Winners

The 2002 J. J. Sakurai Prize



William Marciano (top), at the U.S. Department of Energy’s Brookhaven National Laboratory, and **Alberto Sirlin (bottom)** of New York University have won the J. J. Sakurai Prize for Theoretical Particle Physics for 2002. They received the awards at the April 2002 APS meeting in Albuquerque, New Mexico.



Please send in names of those in NYS who have won Physics awards that we may have missed and any future winners to be included in the next issues of the Newsletter.

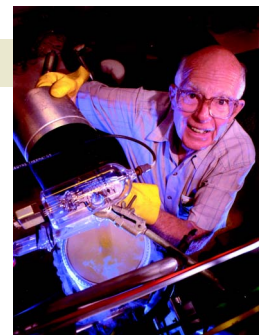
The 2002 Einstein Prize



The inaugural Einstein Prize was won by **Peter Bergmann** (March, 24 1915 - October 19, 2002) of Syracuse, NY. The prize was shared with John A. Wheeler and is awarded biannually by the American Physical Society in recognition of work in gravitational physics.

The 2002 Nobel Prize in Physics

Raymond Davis Jr., (Blue Point, NY) was a winner of the 2002 Nobel prize in physics “for pioneering contributions to astrophysics, in particular for the detection of cosmic neutrinos”. Davis shared the prize, with Masatoshi Koshiba, Japan. And with Riccardo Giacconi (US) for “for pioneering contributions to astrophysics, which have led to the discovery of cosmic X-ray sources”. The Nobel laureates will be awarded their prizes at a ceremony in Stockholm, Sweden, Dec 10, 2002. The prize consists of a diploma, a medal and 10 million Swedish kroner (roughly 1 million U.S. dollars) shared among the recipients.



NYSS Recent and Upcoming Symposia

FALL 2003 SYMPOSIUM

Topic: Particle Accelerator Frontiers and New Physics Potential

Location: Brookhaven National Lab

Date: October 17-18, 2003

Contact: Dr. Zohreh Parsa, Brookhaven National Lab
Physics Department 510A, Upton, NY 11973-5000, USA

Web page: <http://www.nysaps2003.bnl.gov/>

SPRING 2003 SYMPOSIUM

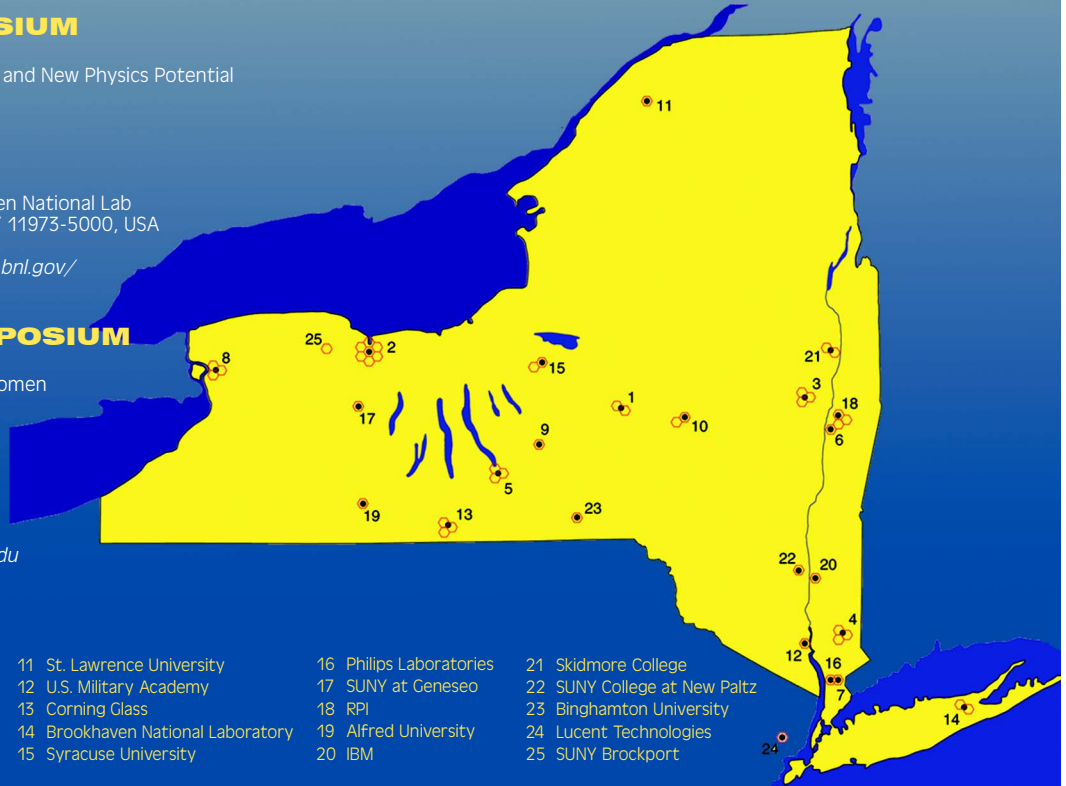
Topic: The Physics of Everyday Phenomen

Location: SUNY, Geneseo

Date: April 4-5

Contact: Dr. Savitri Iyer

Web page: <http://physics.geneseo.edu/APSAAPT/2003.htm>



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|----------------------|-------------------|-----------------------------------|--------------------------|------------------------------|
| 1 Colgate University | 6 SUNY at Albany | 11 St. Lawrence University | 16 Phillips Laboratories | 21 Skidmore College |
| 2 RIT | 7 Pace University | 12 U.S. Military Academy | 17 SUNY at Geneseo | 22 SUNY College at New Paltz |
| 3 Union College | 8 SUNY Buffalo | 13 Corning Glass | 18 RPI | 23 Binghamton University |
| 4 IBM | 9 SUNY Cortland | 14 Brookhaven National Laboratory | 19 Alfred University | 24 Lucent Technologies |
| 5 Cornell University | 10 SUNY Oneonta | 15 Syracuse University | 20 IBM | 25 SUNY Brockport |

The Regents Exam, cont.

preparation of the Physics teachers. NYSS-AAPT and other organizations such as the Science Teachers Association of New York State (STANYSS) and the Physics Mentors (OMNI) have been conducting workshops and awareness sessions for several years focused on the Core Curriculum Guide. The attendance steadily increased as the fall of 2001 approached. These organizations provide this staff development to their members and others with reasonable or no cost to participating teachers, assuming a responsibility which should have been borne by the school districts and the State Education Department, and happy to do so.

These are some of the concerns. The decisions that are made will have a long-term and far-reaching consequence at all levels of science education in New York State.

—Lawrence Josbeno, President of NYSS of American Association of Physics Teachers

Section History, cont.

ties with GE, Bausch and Lomb and Corning helped to form the link between industrial and educational research that has characterized the section ever since. To indicate the quality of the talks at NYSS meetings, opening remarks at the 50th anniversary meeting of the NYSS on superconductivity held at Union College in 1988 indicated that the previous NYSS meeting at which superconductivity had been discussed in 1966

had 11 principal speakers, four of whom were later awarded the Nobel Prize in Physics (Schrieffer, Giaever, Anderson, and Bethe).

—Jay Newman, Union College, Schenectady, New York

From the Chair, cont.

awards grants to individuals in the New York State and adjacent States and Provinces for the best proposals for projects aimed at educating the general public about physics. In our Web page, you can find a list of previously awarded projects and the guidelines to submit a proposal.

Finally, the success that our Section has had during the six decades it has been active is due in no small part to the dedication of those individuals who volunteered their time and efforts for the benefits of the Society and its members. The governing body of the Section, a friendly group of executive committee members and officers, is constantly looking for your expertise and enthusiasm. Let the members of the Committee know (their name and addresses can be found in the Web-page and in this Newsletter) that you want to help!

I conclude these remarks with an invitation to join the Section if you are not a member, and to attend our Symposia, contribute to the Newsletter and participate in whatever way you can to the activities of our Section.

—Gianfranco Vidali, Chair of the New York State Section of the American Physical Society

Fall 2002 Symposium
At Syracuse University, Topic: The Small, The Large and the Universe



Other Meetings in NYS:

SPRING 2003:

Topic: The 8th Conference on the Intersections of Particle and Nuclear Physics (CIPANP2003)

Location: The Grand Hyatt Hotel, New York

Date: May 19-24, 2003

E-mail: cipanp2003@bnl.gov Web page: <http://www.cipanp2003.bnl.gov>

Contact: Dr. Zohreh Parsa, Physics Department, 510A, Upton, NY 11973-5000, USA

**Executive Committee:
New York State Section, APS**

Gianfranco Vidali, Chair (01)
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