

American Physical Society New York State Section

Newsletter
Volume 5
Spring 2009

2009 Elections by Larry Josbeno, Secretary/Treasurer

Soon we will be voting for a new Chair-elect and seven members of the Executive Committee. Since the Election of 2005, we have been using Electronic Voting. This is not difficult, but any member can request a paper ballot. If you wish a paper ballot contact me at josbenlj@corning-cc.edu, or call at (607)962-9259, or mail me:

Prof. Lawrence Josbeno
Physics Department
Corning Community College
1 Academic Drive
Corning, New York 14830

For those of you that prefer the convenience of electronic voting; sometime in February 2009, the target date is February 16, I will activate the Web voting site. A broadcast email will be sent to all members advising them of the election and the procedures to follow. You will be able to request a paper ballot.

If your email "bounces back" you will be automatically sent a paper ballot. Your email can "bounce" if you changed your email address, or if you checked the box at the end of each email APS sends you, you may have done this inadvertently. If your not sure and would like to vote on line and

receive all Section emails, email me and I'll arrange it. You should have received several emails from me since September 2008.

Sometime in February (23 - 27), APS will send paper ballots to all without email addresses and to those whose email messages "bounced". This Newsletter contains the printed bios of all the candidates. (Note: A copy of the paper ballot is NOT included in this Newsletter.) These bios will also be available on line.

March 23. is the estimated deadline for web voting. March 27 the estimated deadline for receipt of paper ballots. You will be informed of the exact dates when you receive announcement of the voting. All the candidates will be informed of the outcome as soon as possible and the winners will be invited to attend April Executive Committee meeting at the University of Rochester.

The bios for the nominees for Vice-Chair, Secretary-Treasurer and at large Executive Committee Members follows.

Note from the Editor E. Kiko Galvez

Dear Readers,

Apologies that it took us two years to put out a new Newsletter. This issue has an important component: the Bios and statements of the candidates for elections. Elections will be ongoing by the time this Newsletter is out. Please take the time to vote.

We also include other newsworthy items about our section, such as the topical symposia, outreach grants and student poster awards. Please note that our next meeting is at Rochester (see next box). It will be our 100th symposium! Try to attend—it will be a good one.

If you are not a member of NYSS but member of APS it takes almost no effort and no extra cost to become one, and makes a big difference. Your membership turns into outreach almost immediately.

Hope you enjoy reading the Newsletter.

**Spring 2009 Symposium:
"Harnessing Photons: from
Energy to Entanglement"
University of Rochester
April 17-18, 2009**

For more information visit the symposium website: <http://www.nyssaps.org/>.

or Contact Nick Bigelow, Chair of the Local Committee at: big@rochester.edu

For student support contact Sunil Labroo at labroos@oneonta.edu

Inside this issue:

<i>Election Candidates Bios</i>	2-7
<i>Recent Symposia</i>	3
<i>Cornell Photo Highlights</i>	4
<i>APS Awards</i>	5
<i>Rich Galik recognition</i>	5
<i>PTEC Conference Announcement</i>	6
<i>Student Poster Awards at Corning</i>	7
<i>Corning Meeting Highlights</i>	7
<i>Outreach Grants</i>	8
<i>Executive Committee</i>	8

**Next Outreach
Grant Deadline:
April 1, 2009**

Election Candidates' Bios

Vice-Chair

Donnell T. Walton

Research Associate, Science and Technology Division, Corning Incorporated

Education: B.S. (Physics), North Carolina State University, Raleigh 1989; B.S. (Electrical Engineering) North Carolina State University, Raleigh 1989; Ph.D. (Applied Physics) University of Michigan, Ann Arbor, 1995

Research/Teaching Interests: Rare-earth doped glass systems; Nonlinear optics; Ultrafast optical phenomena; High power fiber lasers

Relevant Experience: (8/96-12-99) Assistant Professor of Physics, Howard University, Washington, DC; (1/95-8/96) Designer and Coordinator, Laser Education Workshop (NSF-CUOS&USI), Detroit-Area Public Schools; (11/6/97) Presentation to Banneker High School Physics Students; (1997) Mentor for high school Math/Science Program; (1997) Designed curriculum for Science and Math Program for 8-14 year olds in Metropolitan DC area. Presentations: "Is the 'Recruitment and Retention of Minorities' Model Inaccurate?" American Assoc. of Physics Teachers, (1994); National Air and Space Museum (4/98); "Optical Communications," Shell Speaker, National Science Teachers Association, National Convention (3/02); "Optics in the curriculum," Superintendents' Conference, Rochester, NY Public Schools (3/02); "Strategizing for your physics research career;" National Conference of Black Physics Students (2003).

Statement

I have been interested in physics education since I taught in my high school class. I have thoroughly enjoyed instructing students, teachers, and most recently other scientists since leaving academia to pursue industrial research. I welcome the opportunity to serve on the Executive Committee would afford to partner with like-minded individuals in deepening physics awareness and fluency at the state and national levels.

Secretary/Treasurer

Gianfranco Vidali

Professor of Physics, Syracuse University

Education: Ph.D. (Physics), Pennsylvania State University, 1982; Doctorate in Physics, University of Genoa (Italy), 1977

Research/Teaching Interests: Research-Astrophysics: experimental study of the formation of molecules in the interstellar medium and planetary atmospheres. Research- Atom-surface interaction: experiments and theory of the interaction of He atoms with surfaces. Teaching-Current: integration of research experience in the undergraduate curriculum through newly designed courses and by providing undergraduate students with an opportunity to work in a research laboratory. Teaching-Past: implementation of Web-based technologies into science appreciation courses and outreach activities to elementary school teachers

Relevant Experience: Experience: Visiting Faculty, NASA Astrobiology Institute, Univ. of Hawaii (2/2008-3/2008); Professor of Physics, Syracuse University (1998 – present); Visiting Professor at the University of Chergy-Pontoise (2000); Associate Professor of Physics, Syracuse University (1990-1998); Visiting Associate Professor, Pennsylvania State University (1995); Visiting Research Fellow, Princeton University (1990); Assistant Professor of Physics, Syracuse University (1984-1990); Post-doctoral position at Caltech, (1982-1984). Grants-Research(current): NASA (Laboratory Astrophysics and Solar Sys-

tems Origin), NSF (Planetary Astronomy), Bilateral (US-Israel) Science Foundation; collaborator to the University of Hawaii's NASA Astrobiology Institute Team investigating the origin, history and distribution of water and its relation to life in the Universe. Grants-Teaching (past): NSF (Curriculum Development), NASA (Outreach). Honors: APS Fellow (2006); Alfred P.Sloan Fellow (1986). Publications: Over 100 refereed papers and one popularization-of-science book.

Statement: Most recently I served, for four years, on the American Physics Society Council as a representative of the State Sections. My commitment to the Society and the New York State Section is strong, as I helped in the development of the highly successful NYSS Outreach Grants Program. I am a member of the recently constituted (Nov. 2006) APS ad-hoc *Committee on Informing the Public* to devise ways to foster the appreciation of Physics among the public. I have also co-organized a NYSS Symposium (*The Small, the Large, and the Universe*) at Syracuse University in 2002 and visited Congressional offices regularly on behalf of APS. At Syracuse University I am the organizer of the *Tuesday Night Lectures*, a series of lectures by physicists (from S.U. and beyond) aimed at the lay public. I am currently a member of the Executive Committee working on outreach activities and being an informal liaison with the American Physical Society. I served as vice-chair and then chair of the NYSS Executive Committee in the past. Now, with the opening of the position of Secretary/Treasurer, I would like to serve the NYS Section in this new capacity and bring my experience for the benefit of the Section in these challenging economic times. My priorities will be to make sure we have the financial resources to continue our successful programs, such as: organization of semiannual symposia, providing travel assistant for students to attend and participate in such symposia, and the having adequate funds for our outreach grants. I will work with our Chair and members of the Executive Committee to increase our budget so we will be able to strengthen our programs.

Member of the Executive Committee

George C. Cardoso

Research Staff Member, Xerox Research Center - Webster

Education: B.S. (Physics) Univ. Federal de Alagoas, Maceio, (Brazil), 1996; Ph.D. (Physics) Univ. Federal de Pernambuco, Recife (Brazil) 2002.

Research/Teaching Interests: Xerographic development and transfer systems; Charged particle adhesion and cohesion; Optics and atomic physics.

Relevant Experience: Taught Freshman Physics; Post-doctoral research at Northwestern University (NU/MIT MURI on quantum information); Adjunct faculty member of Physics, Adelphi Univ.; Judge, several New York State Science Fairs; Has acted as liaison Industry-University at Xerox (Grant with U. of Massachusetts at Amherst); Has helped the Rochester, NY local community as a "Xerox Science Consultant" in Rochester Public Schools; Serves as a referee for journals of OSA, the Institute of Physics and SPIE (Optics Engineering).

Statement: I am interested in serving the APS NYS Section community by:

- Working with other members of the NYSS to ensure successful semi-annual meetings;
- Seeking to promote synergy between industry and academia in our semi-annual meetings;

Election Candidates' Bios continued

- Promoting illustration of non-traditional physics fields as possible careers for students with Physics training;
- Promoting interest for physics in the younger generations;
- Listening to other member's experiences to find where I can maximize my contribution.

James B. Hannon

Manager, Molecular Assemblies and Devices, IBM T.J. Watson Research Center, Yorktown Heights, NY

Education: B.S. (Physics) Worcester Polytechnic Institute, 1987; Ph.D. (Physics) University of Pennsylvania, 1994.

Research/Teaching Interests: Nanotechnology; Carbon electronics (nanotubes, graphene); Low-energy electron microscopy; Crystal growth

Relevant Experience: Assistant Professor of Physics, Carnegie Mellon University; Taught Freshman Physics; Advised graduate and undergraduate students in research; Judge, New Mexico State Science Fairs; Has held university, industrial, and national lab positions.

Statement:: The NYSS plays an important role both in raising awareness about careers in physics and by providing a forum for students and educators to learn more about recent discoveries. The biannual symposia organized by the NYSS are a great way for helping students understand what physicist really do. In my past service to the NYSS I helped to increase undergraduate involvement in our symposia. We now subsidize undergraduate attendance, making it easier for students to actively participate. In the future, I would like to explore creating a mechanism to bring researchers to state universities and colleges for undergraduate colloquia. The NYSS is doing a great job of bringing undergraduates to our meetings. We might be able to involve even more students by facilitating high-level undergraduate colloquia. I believe that, with the diverse background of the Executive Committee, it should be possible to recruit an extensive list of willing speakers that could be distributed to state colleges and universities.

Scott Heinekamp

Professor of Physics, Wells College

Education: B.S.(Physics) Rensselaer Polytechnic Institute 1975; M.S. (Physics) Rensselaer Polytechnic Institute 1979; Ph.D. (Physics) Brown University 1985; Graduate work in Electrical Engineering at University of Illinois, and in Physics at Weizmann Institute.

Research/Teaching Interests: Materials physics, especially x-ray diffraction at Cornell; Introductory calculus-based physics w/ laboratory; Relating physics to engineering; Freshman liberal arts seminar.

Relevant Experience: NSF ILI grant 1990 for undergraduate research; Coordinator of dual-degree engineering program; Developing applied physics major; Visiting scientist at AT&T Bell Labs 1993-95; Member: American Physical Society & American Association of Engineering Education; Adjunct Professor of Applied & Engineering Physics, Cornell University (2003-present).

Statement: I try to develop an appreciation for physics as a human endeavour in all the students I encounter, no matter what their academic direction, and certainly whether or not they seek to major

in the physical sciences. Part of the mission of the New York Section is to communicate the meaning and value of physics along the same lines. Our semi-annual theme-based meetings are successful because, by travelling around the state, we bring the message of physics to as wide an audience as possible: not only to physical scientists and engineers, but increasing often, to bio-scientists, and indeed to all curious folks.

What we as physicists do – to try to understand and explain nature – is fascinating and fun, and challenging in the best possible way. And we face other challenges as well. Two examples: we need to insure that our shared passion is communicated in the most welcoming way to our successors. And, for complex and difficult-to-articulate reasons, women and minorities continue to be under-represented in the physical sciences. I think that an active and engaged New York State Section is an important means to address these, and other, issues.

Lastly, as practitioners we surely know how valuable our physics training has been, and I earnestly support efforts to “get the word out” that an undergraduate focus on physics leads to all manner of post-graduate possibilities. This, too, is central to our mission. I'm proud of whatever contribution I've made to date to the successful outreach work that the Section does and would like to continue serving the Section as member-at-large.

Continued →

Recent NYSS-APS Topical Symposia:

Fall 2008: Optics and Materials Science, a celebration of Corning's 100 years in research

November 14-15, 2008, Sponsored by Corning Incorporated, Corning, NY, and located at the Corning Museum of Glass, in Corning, New York .

Spring 2008: Accelerator-Based Science

April 18-19, 2008. Sponsored by Cornell Laboratory for Accelerator-based Sciences and Education (CLASSE), and located at Cornell University, in Ithaca, NY.

This symposium was a joint conference with AAPT/ NYSS (the American Association of Physics Teachers, New York State Section). Meeting Website: <http://www.lepp.cornell.edu/Events/APSAAAPT/>

Fall 2007: Planets - Geophysical and Astrophysical Perspectives

October 19-20, 2007. Located at Skidmore College Saratoga Springs, NY.

This was a joint symposium of the New York State Sections of the American Physical Society and the American Astronomical Society.



Photo Highlights of the Spring 2007 Meeting at Cornell

Election Candidates' Bios continued

Savi Iyer

Associate Professor, Department of Physics and Astronomy
SUNY Geneseo

Education: M.Sc. Indian Institute of Technology, Chennai, India, 1986; M.S. Iowa State University, Ames, IA, 1989; Ph.D. University of Pittsburgh, 1993.

Research/Teaching Interests: General Relativity, gravitational lensing; Theoretical Physics, Geometric Methods; Involving undergraduate in research experience in theoretical physics.

Relevant Experience: Over twelve years of teaching experience at SUNY Geneseo; Member of APS and AAPT; Local organizer of the APS-NYSS meeting at SUNY Geneseo, 2003; Faculty advisor for Sigma Pi Sigma; Freshman Summer Orientation.

Statement: Once again, SUNY Geneseo's was probably the largest contingent physics majors at the semi-annual symposium this fall! Given that the NYSSAPS symposia are at the right accessibility level for undergraduate and the topics vary from year to year, this is a great opportunity for student exposure to research areas in physics. This year we had representation from all four years and equal representation of women physics majors. I look forward to hosting and participating in these meetings as well as the opportunity to serve in other ways on the executive board.

Michael Kotlarchyk

Professor of Physics, Rochester Institute of Technology

Education: B.S. (Physics), M.S. and Ph.D. (Applied Radiation Physics/Nuclear Engineering) from Massachusetts Institute of Technology.

Research/Teaching Interests: Neutron, x-ray, light scattering, and NMR from self-assembled structures in complex fluids; Enjoy teaching physics at all levels; Research with undergraduate and gradu-

ate students.

Relevant Experience: Current member—NYSS-APS Executive Committee (since 2005); Co-organizer for Spring 2005 NYSS-APS Symposium at RIT; Twenty-four years of teaching experience; Graduate Program Faculty member in RIT's Chester F. Carlson Center for Imaging Science and Material Science and Engineering Program; Scientific Advisor for Cerion Energy, Inc. (Rochester, NY); Coauthor of graduate textbook "Interactions of Photons and Neutrons with Matter" (World Scientific, 2007) and have published various reviews on scattering theory and radiation-matter interactions; Funding for research involving undergraduates; Neutron and x-ray beam-line user at numerous national laboratories; Visiting Scientist at MIT (1994); Past industrial experience at Exxon Research/Engineering and Polaroid; Assistant to Department Head of RIT Physics Department; Member APS, OSA, ACS, NSSA (Neutron Scattering Society of America).

Statement: During the past three years, I have had the pleasure of being a member of the NYSS-APS Executive Committee. In 2005, I was involved with the NYSS-APS as a co-organizer of the Spring Symposium on *Frontiers in Squishy Physics* held at RIT. I would like the opportunity to continue and increase my involvement with the NY State Section. In particular, I am interested in helping to ensure that the presentations and topics at the Spring and Fall Symposia are accessible to a broad physics audience, especially undergraduate stu-

dents, yet at the same time ensure they convey the excitement of frontier research in the various sub-disciplines. Also, as one who has taught primarily undergraduates over the past twenty-four years, I am very concerned about the quality and direction of secondary-school education received by students in New York State. The NYSS can be very instrumental in shaping science education guidelines for the state, and I would like to help define and facilitate efforts aimed toward this goal.

Continued →

Election Candidates' Bios continued

John W. Noé

University Instructional Specialist, Department of Physics and Astronomy, Stony Brook University

Education: B.S. (Physics) City College of New York, 1967; Ph.D. (Physics) University of Pennsylvania, 1974.

Research/Teaching Interests: Optics and optics education; experimental atomic, nuclear and accelerator physics; Non-traditional (project-based) education, promoting ethnic and gender diversity, improving the undergraduate physics experience, K-12 outreach.

Relevant Experience: Executive Director, Stony Brook Laser Teaching Center, from its inception in 1999. Developed the Center and its web site and mentored numerous high school, undergraduate and beginning graduate student optics-related projects there; Active member of the Women in Science and Engineering (WISE) program. Introduced high school juniors to optics and college freshmen to optics-related research; reviewed applications for admission and scholarships, contributed to WISE working group meetings; Co-organized the Symposia on Undergraduate Research at the annual OSA/APS-DLS optics meetings; was sole organizer of the "SNEAP" conference of accelerator personnel held at Stony Brook in 1984; Member APS, AAPT and OSA; honorary member Sigma Pi Sigma, Stony Brook chapter.

Statement: While I have been at Stony Brook for my entire career, I have also long had many personal and professional ties to upstate New York and the upstate physics community. I am impressed by the way the Section's topical symposia draw an eclectic mix of active and retired physicists, physics educators, and students. I would like to serve on the Executive Committee in part to promote greater participation in these excellent events by people from the NYC-LI area. A longer term goal should be for the Section to have occasional downstate symposia. I believe these would attract many local high school physics teachers and students, among others, and would help create valuable contacts across regional, occupational and generational lines.

Stacie Swingle Nunes

Assistant Professor, Physics Department, SUNY New Paltz

Education: B.S. (Nutritional Sciences) Cornell University, 1978; M.A. (Physics) SUNY New Paltz, 1984; Ph.D. (Physics) University at Albany, 1995.

Research/Teaching Interests: Electronic structure and properties of bio molecules, semiconductor nanostructures, and impurities in semiconductors; Teaching introductory physics to science students, classical mechanics, molecular modeling, and science for general education students.

Relevant Experience: APS-NYSS Executive Committee 9/97 to present; APS – NYSS Outreach Grants Committee Chair 9/02 – 12/06; Project Director, Alliance for Minority Participation/Collegiate Science and Technology Entry Program at New Paltz since 9/92.

Statement: I am particularly interested in working on linkages between the community of physicists in New York State and educators at all levels. The biannual symposia provide an opportunity for physics educators to stay abreast of current activi-

Continued →

Congratulations to 2008 APS award recipients from New York State:

Robert R. Wilson Prize for Achievement in the Physics of Particle Accelerators Recipient: Satoshi Ozaki, Brookhaven National Laboratory

"For his outstanding contribution to the design and construction of accelerators that has led to the realization of major machines for fundamental science on two continents, and his promotion of international collaboration."

Dannie Heineman Prize for Mathematical Physics Recipient: Mitchell Feigenbaum, Rockefeller University

"For developing the theory of deterministic chaos, especially the universal character of period doubling, and for the profound influence of these discoveries on our understanding of nonlinear phenomena in physics."

George E. Valley Jr. Prize Recipient: Paul Sorensen
Brookhaven National Laboratory

"For his role in the discovery of quark number scaling in the elliptic flow of hadrons in nucleus-nucleus collisions, and its interpretation showing the relevance of quark degrees of freedom in heavy ion interactions."

Outstanding Doctoral Thesis Research in Beam Physics Award Recipient: Rama Calaga, Brookhaven National Laboratory

"For his dissertation about characterization, and correction of RHIC's transverse optics and beam dynamics, and about design of an Ampere class SRF gun and cavity."

Thanks Rich!

At the Recent Meeting at Corning, NYSS-APS gave Rich S. Galik a plaque in recognition for his many contributions to the Section and to physics outreach in New York State.

As past Chair and Executive Committee Member he moved NYSS forward in significant ways.



Election Candidates' Bios continued

ties and topics in the field. They also give physics students the opportunity to network with scientists and other students, and to learn about the state-of-the-art in various areas of physics. I would like to continue to maximize the effectiveness of these meetings for these purposes.

Michael "Bodhi" Rogers

Assistant Professor of Physics, Ithaca College

Education: B.A. (Physics, Mathematics) SUNY @ Geneseo, 1994; M.S. (Physics) Oregon State University, 1999; M.A.I.S. (Archaeology) Oregon State University, 2001; Ph.D. (Physics) Oregon State University, 2003.

Research/Teaching Interests: Ground-based Remote Sensing (cesium magnetometry, ground-penetrating radar, resistivity); Mentoring Undergraduate Researchers; Student-centered, experiential learning in introductory physics and astronomy courses; Teaching Newtonian Mechanics to middle school students using Roller Coasters as examples; Formative Assessment Techniques.

Relevant Experience: NSF Grades K-12 Teaching Fellow 1999-2003; APS Member since 1996; AAPT Member since 1996; Active member of Oregon APS and AAPT for 8 years during graduate school.

Statement: The NYSS of the APS fills the much needed role of providing regional opportunities for academics, industrial physicists, students, and the general public to regularly meet and renew one's excitement about physics. For many New York Physics Students, attending a NYSS-APS symposium is their first experience of physics outside of their school. I look forward to helping continue the excellent NYSS-APS biannual symposium and work towards getting more students to participate.

Erica Snow

Assistant Professor, Physics Department, SUNY Fredonia

Education: B.S. (Physics) Grove City College, 2001; M.S. (Physics) Colorado State University, 2003; Ph.D. (Physics) Colorado State University, 2006.

Research/Teaching Interests: Experimental atomic/molecular physics; Laser and microwave spectroscopy of Rydberg states; Undergraduate research; Teaching conceptual physics to any level students.

Relevant Experience: Member of APS, AAPT, and Sigma Xi; Involved in undergraduate experimental physics research; Teaching experience ranging from algebra-based physics to 400-level courses.

Statement: I believe that the semiannual meetings provided by the APS-NYSS are important to several aspects within the physics community. We need to continually promote the work being done by our colleagues and more importantly the contributions and involvement of the students. Exposing students and the general public to a variety of research in all fields and careers in physics is vital for recruitment, retention, and development of the next generation of scientists. An emphasis should also be placed on the current state of science education.

Continued →

PTEC 2009: The Fifth Annual Physics Teacher Education Coalition Conference

The annual Physics Teacher Education Coalition (PTEC) Conference is the only national event in the country dedicated to physics and physical science teacher preparation. The 2009 PTEC Conference will take place in Pittsburgh on March 13 and 14, directly before the APS March Meeting. The conference will explore the theme of Institutional Transformation: How do we change departments and universities to embrace the mission of preparing tomorrow's teachers? National leaders in physics and physical science teacher will present 90-minute workshops on a variety of themes, including Partnerships for Transformation; Recruiting Teachers; Early Teaching Experiences; Teaching Methods; Resources for Transformation; Introductory Course Reform; Professional Development; Education Research

Presenters will include faculty who run teacher preparation programs at their institutions, directors of national teacher preparation initiatives, and educational innovators who are developing leading science curricula and teaching methods.

Two post-conference workshops on the morning of Sunday, March 15 will feature leaders in science education at the undergraduate level. These workshops will also be open to APS March Meeting attendees who do not attend the full PTEC Conference.

There will be a contributed poster session. Titles and abstracts are due February 27, 2009.

The registration deadline is February 27, 2009

For more information about the conference or PTEC please go to: <http://www.PTEC.org/conferences/2009> or contact Gabe Popkin at popkin@aps.org.

About PTEC:

The Physics Teacher Education Coalition (PTEC) is a network of over 115 institutions committed to improving the education of future physics and physical science teachers. It is part of the PhysTEC project, which is led by the American Physical Society, the American Association of Physics Teachers, and the American Institute of Physics.

About our Section...

- As of November 2008, NYSS-APS has 2402 members .
- It is governed by a Chair, Vice-Chair, Secretary/Treasurer, APS-Council Observer and twelve at-large Executive-Committee Members. Elections are every two years.
- Twice per year it holds a two-day symposium. (See Symposia Box in this Newsletter.)
- Sponsors outreach grants twice per year.
- For more information and bylaws go to our website: <http://www.aps.org/units/nyss/>

Election Candidates' Bios continued

Bruce White

Associate Professor of Physics, Director of Undergraduate Studies, Binghamton University

Education: B.S. Physics Binghamton University; M.S. Solid State Physics Cornell University; Ph.D. Solid State Physics Cornell University.

Research/Teaching Interests: Lattice Vibrations and Carrier Transport in Nanostructures

Lattice Vibrations in Amorphous Solids; Flexible Electronics; Energy Generating Electron Devices.

Relevant Experience: Associate Professor of Physics Binghamton University; Distinguished Member of the Technical Staff Motorola and Freescale Semiconductor; Distinguished Innovator Motorola; Active participation in the IEEE as Solid State Devices Committee Chair for 2005 and 2006 International Electron Device Meeting, Chair of Emerging Technologies Committee 2007 International Electron Device Meeting; Chair/Vice Chair, Device Sciences, Semiconductor Research Corporation, 2006-2007; Co-Organized two MRS Symposia on Nanocrystalline Semiconductors; Organized APS March Meeting Symposia on Complex Oxides and Emerging Research Devices and Materials for the Microelectronics Industry.

Statement: Physicists have played a key role in generating both fundamental understanding of the universe as well as the creation of new technologies that drive economic growth. It is critical that these contributions to society continue. The New York State Section of the American Physical Society plays a vital role in this mission by exposing undergraduates to the exciting research and career opportunities that exist in this wonderful field. I would enjoy the opportunity to assist the New York State Section in this mission and to explore opportunities to involve K-12 educators and students in the program.

END of Bios

Student Poster Awards

At every symposium we give cash awards to the best posters. The winners of the last symposium at Corning were:

Undergraduate Category:

First place: \$200

Taamee Pak, Stony Brook University

"A Wireless Remote Biosensor for the Detection of Biological Agents"

Second place: \$150

Marcos S. Reyes-Martinez, Manhattanville College at Purchase

"A Ferroelectric Investigation of PVDF-TRFE Copolymer Thin Films"

Graduate Category:

First place: \$200

Chia-Chen (Jason) Fang,, Cornell University

"Nanoparticle-Based Ionic Materials"

About our Topical Symposia...

Twice per year we hold topical symposia on a subject of interest in physics and related sciences. They are held at locations around New York State. We try to rotate the sites around the state and also cycle between academic and industrial sites as much as possible. The program consists of ten to twelve invited talks tutorial-style. The format of the symposia is as follows: a Friday session followed by a poster session, a banquet and a public talk by a prominent scientist. The next day includes sessions until mid afternoon, typically. In the last meeting at Corning we started a new initiative: student oral presentations. These were *excellent*, so we foresee continuing them. At each meeting we give awards to the best student posters.

In all of our symposia we give student support to attend the meeting. Banquet tickets for students are subsidized. Attendance to the meetings ranges between 100 and 150 typically. The majority of the attendants are students. For example, in the most recent symposium at Corning there were 136 attendees, of which 91 were students.

The symposia are preceded by a morning meeting of the Executive Committee, where among other things, outreach proposals are discussed and awarded. Minutes of the meetings are posted in the NYSS website.

Some of our symposia are held joint with New York State Sections of other societies, such as the American Association of Physics Teachers and the American Astronomical Society.

If you are interested in hosting a symposium please let us know! We are always looking for new initiatives and sites.

Highlights of the Corning Meeting

This was a memorable meeting. It was located at Corning Inc., in the same building as the Corning Museum of Glass. The program included talks on lasers and microfluidics, by Louis Pollack (Cornell), a historical overview of optics since 3000 BC by Wayne Knox (U. Rochester), glass-ceramic materials by Linda Pickney (Corning), failure of materials by Ron Parrington (IMR Test Labs), new materials for lasers and light emitting devices by Oana Malis (Binghamton U.), teaching of optics and lasers by John Noe (Stony Brook U.), amorphous thin films by Bruce White (Binghamton U.) and crystal growth by Jim Hannon (IBM). The Friday talks were followed by a poster session (see Student Poster Awards) and social hour,

The attendants were treated to an astronomy night after the banquet, with a very interesting talk by Scott Kardel (Palomar Observatory) on the history of Palomar Observatory, its connection to Corning Glass, and the next generation of large telescopes. The talk was followed by a visit to the Eileen Collins Observatory and a planetarium show at Corning Community College.

The afternoon session of the second day of the conference involved a very good session on student research presentations. This new initiative will be continued at the next meeting in Rochester. After the conclusion of the conference the attendants were treated to a tour of the Corning Museum of Glass.

We need to thank the organizers, Donnell Walton, Alan Evans and David Dawson-Elli and Corning Incorporated for hosting a terrific symposium.

Recent Outreach Grants

Fall 2008:

- “Physical Constants Workshop,” Union College. \$810.

Spring 2008:

- “Saturday High School Teacher Workshop” Luanna Gomez, Buffalo State College. \$750.00
- “Atomville” Jill Linz, Skidmore College & Cindy Schwarz, Vassar College S 2008 \$500.00
- “Make-and-Take Workshop for High School Physics Teachers”, Allen Miller, Syracuse University, \$250.00

Fall 2007:

- “A Portable Reflection Gallery”, George M. Thurston, RIT \$900



Reasons to Join NYSS-APS:

- No cost to APS members
- NYSS gets APS allowance based on membership (there are about 4000 APS members in NY state and only 2400 NYSS members)
- NYSS provide partial support to our symposia
- NYSS funds travel support for students to our symposia
- NYSS awards outreach grants
- NYSS promotes the latest physics and scientific research

To join go to: <http://www.aps.org/units/nyss/> **Join now!**

For any Newsletter correspondence send email to:

Kiko Galvez at: egalvez@mail.colgate.edu

Executive Committee of NYSS-APS

Chair: Bob Pompei, Binghamton University (04/07 - 03/09)

Chair-Elect: Sunil Labroo, State Univ of NY - Oneonta (04/07 - 03/09)

Secretary/Treasurer: Larry Josbeno, Corning Community College (04/05 - 03/09)

Council Observer: Jim Owens, Xerox Corp. (04/07-03/09)

Member-at-Large: Nicholas Bigelow, University of Rochester (04/07 - 03/11)

Member-at-Large: Shu Chang, XEROX Webster Res Center (04/07 - 03/09)

Member-at-Large: E. Kiko Galvez, Colgate University (04/07 - 03/11)

Member-at-Large: Scott Heinekamp, Wells College (04/05 - 03/09)

Member-at-Large: Michael Kotlarchyk, Rochester Institute of Technology (04/05 - 03/09)

Member-at-Large: Jill Linz, Skidmore College (04/07 - 03/11)

Member-at-Large: Jay Newman, Union College (04/07 - 03/11)

Member-at-Large: Stacie Nunes, State University of New York at New Paltz (04/05 - 03/09)

Member-at-Large: Michael Rogers, Ithaca College (04/05 - 03/09)

Member-at-Large: Cindy Schwarz, Vassar College (04/05 - 03/09)

Member-at-Large: David Trauernicht, Kodak Research & Development (04/07 - 03/11)

Member-at-Large: Gianfranco Vidali, Syracuse University (04/07 - 03/11)

Member-at-Large: Donnell Walton, Corning Inc. (04/07-03/11)