



Department of Physics Newsletter

Volume 5

Fall 2003 – Spring 2004

CCNY Physics Is Moving Up!

Faculty Size, Student Enrollments, Research Grants -- All Increase

New Faculty Members

Four faculty members joined the department in the 2003-04 academic year, bringing to six the total of new appointments over the last three years.

Carlos Meriles arrived in January 2004. He was born and raised in Córdoba, Argentina. He attended high school at Colegio Nacional de Monserrat and then studied physics at the Facultad de Matematica, Astronomia y Fisica, Universidad Nacional de Córdoba. He pursued his graduate studies in the same institution and carried out research on partially disordered solid systems using nuclear quadrupole resonance under the tutelage of Professor A. Brunetti. He received his Ph. D. in Physics in December 1999. He joined the group of Professor A. Pines at the University of California at Berkeley as a Research Associate in July 2000. There his research focused on the development of new methodologies for nuclear magnetic resonance spectroscopy and imaging.

Dr. Meriles is currently working to establish a research program on micro-scale NMR and MRI. He plans to combine optical methods with NMR and MRI techniques to sensitively detect magnetic resonance in tiny samples. He is also planning to use optical tools to manipulate micro-samples and/or to induce states of hyperpolarization.

V. N. Muthukumar is a theoretical physicist whose primary research interests lie in condensed matter physics. In recent years he has been working on the physics of doped Mott insulators. He is also interested in transport phenomena and collective behavior arising from strong correlation, magnetism, and decoherence in open quantum systems.

Dr. Muthukumar obtained his Ph. D. from the University of Madras, was a Research Associate at Universitaet Dortmund, Germany and at Brookhaven National Laboratory, New York. He was affiliated with the Physics faculty at Princeton University as a Lecturer, before joining the Physics Department at CCNY as an Associate Professor on September 1, 2003.

Alexios P. Polychronakos received his Diploma of Electrical Engineer in 1982 from National Technological University in Athens, Greece; and his M. Sc. and Ph. D degrees in Physics from California Institute of Technology, Pasadena, California, in 1983 and 1987, respectively. He worked as a Research Associate at the Institute of Fundamental Theory at the University of Florida from 1987 to 1990, and as a Research Scientist at the Physics Department of Columbia University from 1990-1992. He was a Fellow of the Theory Division at CERN from 1992 to 1995, an Associate Professor at the Theoretical Physics Department of Uppsala University, Sweden from 1995 to 2002, a Visiting Associate Professor at the Rockefeller University from 2000 to 2002, and the Weissman Professor at the Baruch College of CUNY from 2002-2003. He joined the CCNY Physics Department as a Professor in September 2003.

Dr. Polychronakos' administrative experiences include service as the Head of the Theoretical Physics Department, and as the Administrator of the 'Subatomic Particle Physics' Program at Uppsala University. His areas of research interest encompass a variety of topics in High Energy Physics (Elementary Particle Theory, Quantum Field Theory, and String Theory), Cosmology, Mathematical Physics (Integrable Models, Spin

Chains), and Condensed Matter Physics (Quantum Hall Effect, Fractional Statistics, and Anyons).

Jiufeng Tu joined the department in the summer of 2003. Born in Nanjing, China, he went to an international high school in Wales, UK. He came to U.S. in 1989 to attend Harvard College where he received his A.B. and A.M. degrees in Physics in 1993. He then went to Cornell University to work in Professor A. J. Sievers' group on infrared and Raman studies of disordered solids receiving his Ph. D. degree in Physics in 2000. He carried out postdoctoral research with Dr. Myron Strongin at Brookhaven National Laboratory on infrared properties of high- T_c cuprates and other superconductors from 2000 to 2002. From January 2003 to June 2003, he was a Visiting Assistant Professor at University of North Carolina at Charlotte.

Dr. Tu is working to establish a research program for investigating high-temperature superconductors using infrared and Raman spectroscopies, and to develop infrared spectroscopy into a 'contactless' probe for the study of *ac* transport properties of nanoscale systems. The immediate focus of his research is on the effects of nanoscale inhomogeneity on the optical conductivities as well as the vibrational properties of high- T_c superconductors and nanoscale systems.

Physics Enrollment Increases

Enrollment in undergraduate physics courses continued to rise. In the Fall 2003 semester enrollment stood at 1,413, compared to 1078, 1120, and 1257, for the Fall 2000, 2001, 2002 semesters, respectively. The increase is across the board, that is, both in service courses and in advanced courses offered mainly for physics majors. The number of physics majors is 25, up from 20 in 2002, and 21 in 2001. While presenting the data at a departmental faculty meeting, Professor Michael Lubell, Chair of the Physics Department, attributed this increase to "national trends, and local factors that include a much improved image of CCNY." The only category that showed a decrease is the number of Master's students. The Ph.D. graduate student population remains healthy.

Grant Funding Also Rises

External funding for research carried out by Physics Department faculty members increased dramatically over the last four years: \$1,968,159 in FY 2000-

2001, \$3,471,933 in FY 2001-2002, \$5,661,500 in FY 2002-2003, and \$5,248,357 in FY 2003-2004 (to date). What makes this increase even more remarkable is that the number of faculty members declined during this period. Identifying this increase as a move in the right direction, Professor Lubell expressed optimism that with the recent hiring of four new faculty members the level of research support would increase further.

Instrumentation Gifts Bolster Department's Research Facilities

Distinguished Professor **Robert Alfano** and Associate Professor **Vladimir Petricevic** are recipients of two major instrumentation gifts from the industry. Dr. Alfano received optical communication research equipment worth \$3M from JDS Uniphase (JDSU) Corporation, an optical communications company that designs and manufactures products for fiber-optic communications. Dr. Alexei Turukhin, a scientist at JDSU who received his Ph. D. from the CCNY Physics Department in 1999, was instrumental in securing the gift for CCNY over other competitors. The instrumentation is housed in a renovated laboratory in the second floor of the Marshak Science Building. "These pieces of equipment will help us launch a respectable program in optical communications," enthused Dr. Alfano.

Dr. Petricevic secured a Czochralski Crystal Growth station from Corning, Inc. The new station is an important addition to the existing laser crystal growth facility in the Department. "It will be used for growing substrates for Cr^{4+} -based waveguide amplifier," said Dr. Petricevic.

Sarachik Receives 2004 Sloan Public Service Award

Distinguished Professor **Myriam Sarachik** is a recipient of the 2004 Sloan Public Service Award given by the Fund for the City of New York to "honor outstanding civil servants whose work, performance and commitment to the public transcend not merely the ordinary but the extraordinary." Dr. Sarachik was honored for her 40 years of work at CCNY where she teaches Physics, conducts cutting-edge research in Condensed Matter Physics, and serves the Physics community "embodying CCNY's mission to offer rigorous, world-class higher education to all, including immigrants and those who are underprivileged. She

has blazed trails as a scientist, researcher, teacher, mentor and humanitarian,” the award citation read.

On Wednesday, March 24 Mary McCormick, President of the Fund for the City of New York, Bishop Joseph Sullivan, Chair of the Selection Panel, and Barbara Cohn, Vice-President of the Fund for the City of New York, came to City College to present Dr. Sarachik with the award. A brief reception at the Plaza Level of Marshak Science Building preceded the award ceremony. Dr. Sarachik’s colleagues, students, friends, and officials from CCNY Administration attended the ceremony conducted by the Dean of Science, Dr. Maria Tamargo. Provost Zeev Dagan and Chief Operating Officer Lois Cronholm praised Dr. Sarachik on behalf of the College, while Distinguished Professor Herman Cummins and Physics Department Chair Professor Michael Lubell paid tributes on behalf of the Physics Department. In her acceptance remarks Dr. Sarachik expressed her appreciation to City College: “I believe deeply in the stated mission of the College: access and excellence. City College has given me a professional home where I’ve had the opportunity to do research, to participate in a variety of professional activities, and to teach students from every walk of life, many of whom would not otherwise be able to attend college.”

In addition to her remarkable contributions in research, teaching and mentoring Professor Sarachik has a distinguished record of service to the public and physics community. She is the immediate past president of the American Physical Society, and in that capacity she championed the need for freedom of scientific exchange, the human rights of scientists, and outreach to the physics community in developing countries. In particular, she convened a Presidential task force to explore ways to promote collaborations and exchange programs with African physicists.

DoD Awards New Nanotechnology Center to CCNY

The U.S. Department of Defense (DoD) awarded the City College of New York a major grant to establish a *Center for Nanoscale Photonic Emitters and Sensors (CNPES)*. CCNY will receive \$800,000 annually for up to five years to:

- conduct research for developing nanoscale photonic materials for new light emitters and

detectors for military, medical and commercial applications;

- establish an innovative education and outreach program to promote student participation in research; and
- increase the number of science, mathematics and engineering graduates, including members of underrepresented minority groups.

Research activities of the center will cluster in the Physics Department, and will be directed by Dr. Robert R. Alfano, Professor of Physics and Distinguished Professor of Science and Engineering at CCNY. Other Physics Department faculty members involved in the center are Distinguished Professor Joseph Birman, and Associate Professors Vladimir Petricevic and Swapan K. Gayen. The multi-disciplinary research team also includes Dr. Maria Tamargo, Professor of Chemistry and Dean of Science, Dr. Valeria Balogh-Nair, Professor of Chemistry, Dr. Roger Dorsinville, Professor and Chair of Electrical Engineering, and Dr. Leslie L. Isaacs, Professor of Chemical Engineering. The faculty will be closely involved in the education and outreach programs through research supervision and training, student mentoring and student projects.

The CNPES program will build on the research initiated by Dr. Alfano and collaborators under an earlier Enhanced Center for Advanced Technology (E-CAT) grant from the New York State Office of Science, Technology and Academic Research (NYSTAR). Research at CNPES promises to have wide-ranging applications in developing efficient compact wide-band amplifiers and lasers, nonlinear optical and fiber-optic devices, and organic-inorganic hybrid nanoscale materials. “The Center draws upon CCNY’s research excellence in photonics and nanotechnology,” noted Dr. Alfano.

A kickoff meeting for the Center was held on November 5, 2003. In attendance from DoD were Col. Thurman Deloney, Director, Policy and Integration, AFOSR; Dr Koto White, Director of External Programs, AFOSR; Lt. Col Todd Steiner, Program Manager, AFOSR; and Dr. Gail Brown, Research Group Leader, Materials Directorate, AFRL. The day’s activities included a morning session of technical presentations on the Center’s proposed research activities, an afternoon visit of the research laboratories participating in the Center, and a wrap-up round-table discussion for exchange of ideas with the DoD visitors.

Faculty Activities and Achievements

Distinguished Professor of Physics **Joseph L. Birman** was a Visiting Professor of Physics at The Technion Haifa, Israel from December 19, 2003 to January 12, 2004. There he presented a special Theoretical Physics seminar entitled "Contraction of Dynamical Symmetry Groups and Quantum Phase Transitions." He was an invited speaker and session chair for the "International Conference on Photonic, Excitonic, Spintronic Processes in Nanostructures," held in Dallas, Texas from January 22 to 24, 2004. The title of his plenary talk was "Electrodynamics and Dynamical Symmetry in Nearly Ferroelectric Superconductors."

Professor **Timothy H. Boyer** was elected a Fellow of the American Physical Society, "for original contributions to the classical and quantum theories of electromagnetism, and in particular to the theories of van der Waals and Casimir interactions."

Distinguished Professor of Physics **Herman Z. Cummins** was elected a Fellow of the American Association for the Advancement of Science (AAAS) on September 19, 2003.

Distinguished Professor **Robert R. Alfano** and Associate Professor **Swapan K. Gayen** were Guest Editors of the special issue (Volume 9, Number 2, 2003) of *IEEE Journal of Selected Topics in Quantum Electronics* on "Lasers in Medicine and Biology." The other Guest Editor, Dr. **Stavros G. Demos** of Lawrence Livermore National Laboratory, is a City College graduate who earned his Ph. D. in Physics in 1994.

Dr. **Morton Denn** was elected a Fellow of the American Physical Society "for outstanding contributions to non-Newtonian fluid mechanics and polymer rheology, especially his pioneering studies on the stability of viscoelastic flow and the causes and effects of wall slip." Dr. Denn is the Albert Einstein Professor of Science and Engineering, a Distinguished Professor of Chemical Engineering, and a Professor of Physics. He directs the Benjamin Levich Institute for Physico-Chemical Hydrodynamics. He is a member of the National Academy of Engineering and the American Academy of Arts and Sciences.

Professor **Marilyn Gunner** is the Vice-Chair Elect of the Division of Biological Physics of the American Physical Society.

Research Professor **Mary Potasek** was elected a Senior Member of the IEEE. She also received the best paper award at the International Conference on Computer, Communication and Control Technologies CCCT '03 and the 9th International Conference on Information Systems Analysis and Synthesis ISAS '03, held in Orlando, Florida from July 31- August 2, 2003.

Distinguished Professor **Myriam P. Sarachik** was President last year of the 43,000-member American Physical Society (APS), the third woman to serve in that capacity in the Society's 104-year history. During her Presidency in 2003, she represented the Society abroad on various occasions. She brought greetings of the APS at the opening session of the Inter-American Conference on Physics Education in Havana, Cuba on July 7, and met with officials of the Cuban Physical Society, the University of Havana, and several Cuban dissidents. On July 11, she gave the closing address in Madrid on the occasion of the Centennial Conference celebrating 100 years of the Spanish Royal Society of Physics and Chemistry. In August, she gave a technical talk at the International Center for Theoretical Physics (ICTP) in Trieste. With APS Vice President Marvin Cohen of University of California, Berkeley, she met with Director Katepalli Sreenivasan and other ICTP staff members to explore possibilities for joint programs involving APS and ICTP. In October, she brought greetings of APS and gave the opening technical talk at the joint conference in Mexico of the Canadian, American, and Mexican Physical Societies (CAM) organized by graduate students of the three societies.

Dinner to Honor Herman Cummins

Distinguished Professor **Herman Cummins** was honored at a dinner that was held on June 26, 2003. In attendance were faculty members of the Physics Department. Department Chair Professor Lubell complimented Dr. Cummins for his many years of distinguished service, and in particular, for heading the Strategic Hiring Committee. Dr. Cummins also led the new faculty search that resulted in the addition of four new members to the faculty. Dr. Cummins retired in January 2004, but continues to pursue his research activities in the department.

Physics Majors Month Observed

During the Physics Majors Month, October 2003, Physics majors in the Department had an

opportunity to get to know one other, learn about some of the ongoing research activities in the department, and receive information about career opportunities in Physics. Distinguished Professor **Joseph Birman** led the month-long activities that included a series of presentations by several faculty members, informal discussion sessions, and tours of some of the research laboratories in the department. The presentations included: “*Topological Effect in Condensed Matter Physics*” by Professor **David Schmeltzer**, “*Microwave Response of Low Dimensional Systems*” (with lab tour) by Assistant Professor **Sergey Vitkalov**, “*Infrared Exploration of Electrons in Superconductors*,” (with lab tour) by Assistant Professor **Jiufeng Tu**, “*Experimental Studies at Low Temperatures*” (with lab tour) by Distinguished Professor **Myriam Sarachik**, “*The Breakdown of Causality in Modern Physics*” by Professor **Daniel Greenberger**, “*Making Sense of How Students Make Sense of Physics*” (with Lab tour) by Associate Professor **Richard Steinberg**, “*Where’s the Physics in Biophysics?*” (with Lab tour) by Professor **Marilyn Gunner**, and “*The Theory of Everything*,” by Professor **Michio Kaku**. A faculty-student luncheon on October 30, 2003 concluded the activities of the month.

Physics Majors Attend Meeting

Physics majors **Merlin Brito**, **Ricardo Gonzalez**, **David Matten**, **Antonino Miano**, **Nicholas Merolle**, **Gregory Pierce**, and **Jose Pinto** attended the 128th Meeting of the New York State Section of the American Physical Society (NYSAPS) held October 17-18, 2003 at the Brookhaven National Lab (BNL). In particular, they attended the 87th Semi Annual Symposium entitled, “Particle Accelerator Frontiers and New Physics Potential” as a part of their “Current Topics in Physics” seminar course. Professor **Fred Smith**, instructor for the course, supervised the BNL trip that was supported by the Jerry Gelbwachs Optics Fund.

Graduate Students

Students who started their graduate education in Physics in the Fall 2003 semester include **Joseph Dooley**, **Ming-Yang Lu**, **Jiaju Ma**, **Sean McHugh**, **Kevin Phillips**, **Alejandro Victoria**, and **Ying Xu**. Joseph Dooley received his BS from University of Hartford, and pursued graduate studies in Physics at the University of Connecticut, Storrs. Sean McHugh and Kevin Phillips graduated from the University of Wisconsin at Madison, and

Rutgers University, respectively. Ming-Yang Lu, Jiaju Ma, and Ying Xu come from Fudan University, People’s Republic of China. Also included in the list of new graduate students is **Shahid Chak** who entered in the Spring 2003 semester.

CUNY Photonics Symposium Held

CUNY Photonics Symposium 2003 was held on November 13, 2003 at the Graduate Center of the City University of New York (CUNY). The symposium was organized by the Faculty Advisory Committee of the CUNY Photonics Initiative, one of the first initiatives to be designated a “flagship area” in the CUNY 2000-2004 Master Plan. Photonics is a major area of research in the Physics Department, and several faculty members are associated with the Photonics Initiative.

The symposium started with greetings and introductory remarks from Dr. **Brian Schwartz**, Vice President for Research and Sponsored Programs, Dr. **Gillian Small**, University Associate Dean for Research, and Dr. **Robert Alfano**, Distinguished Professor of Science and Engineering and Chair of the Faculty Advisory Committee of the CUNY Photonics Initiative. The technical session featured the following seven research presentations by new photonics faculty members: “*Self-assembled semiconductor nanostructures and their optoelectronic applications*,” Dr. **Zhonghui Chen**, Brooklyn College; “*One-dimensional photonic crystals based on Bragg multiple quantum wells*,” Dr. **Lev Deych**, Queens College; “*A coupled atom-cavity system for studies of coherent quantum control*,” Dr. **Gregory Foster**, Hunter College; “*Pulse propagation and optical imaging through turbid media*,” Dr. **Swapan Gayen**, City College; “*A tunable photonic band gap and other nanostructured materials*,” Dr. **Bonnie Gersten**, Queens College; “*Spectral ellipsometry and related studies of MBE grown GaN on 4H SiC*,” Dr. **Todd Holden**, Brooklyn College; and “*Diamond-based LEDs as single photon sources*,” Dr. **Alexander Zaitsev**, College of Staten Island. Dr. Joseph Birman, Distinguished Professor of Physics at the City College of New York, was the moderator.

The technical session was followed by a planning session to discuss the organization and future activities of the Photonics Initiative. Faculty members active in Photonics research at different CUNY campuses participated in this session

moderated by Dr. **Samir Ahmed**, Herbert Kayser Professor of Electrical Engineering at the City College of New York. The CUNY Photonics Initiative was launched in 2000 to position CUNY as one of the top photonics research universities in the U.S. The mission of the Initiative is to:

- Establish CUNY as one of the foremost photonics research institutions by attracting top-quality researchers to complement and strengthen existing capabilities;
- Develop a top-notch graduate-level multi-disciplinary photonics education program, in cooperation with appropriate science and engineering departments, providing students with academic and industrial research opportunities;
- Support economic development through technology transfer, research agreements, start-ups, spin-offs and incubator facilities.

The Photonics Initiative builds on existing strengths. CUNY is home to the NYS Center for Advanced Technology in Ultrafast Photonics (CAT), a multi-campus center that creates positive economic impact and advances photonics research. The Institute for Ultrafast Spectroscopy and Lasers (IUSL) at City College is recognized as a leading photonics research institute. CCNY was recently awarded two major research centers: the Center for Optical Sensing and Imaging by NASA, and the Center for Nanoscale Photonics Emitters and Sensors by DoD. Over fifty faculty members are engaged in photonics research at CUNY.

The Photonics Initiative calls for the creation of approximately fifteen new faculty positions throughout the university (eight have been filled to date). Campuses are allocated new faculty lines in areas that expand their existing strengths, such as, Brooklyn College in semiconductor physics; City College in biomedical optical imaging, laser development, optical communications, nano-science and nanotechnology, and semiconductor materials; Hunter College in quantum computing and biophotonics; Queens College in photonic bandgap materials; and the College of Staten Island in optical polymer materials. The Photonics Initiative is administered by the CUNY Office of Academic Affairs under the guidance of Dr. Gillian Small, University Associate Dean for Research. Dr. Robert R. Alfano, Director of several Photonics-related Centers, serves as the scientific coordinator.

Outreach Activities

Research Experience for High School Students at IUSL

Four high school students participated in research past summer at the Institute for Ultrafast Spectroscopy and Lasers (IUSL) at CCNY directed by Dr. Robert Alfano, Distinguished Professor of Science and Engineering. **Tal Avrahami** and **Richard DiBlasi** of Riverdale Country School participated in a project entitled, "Optical and Lasing Properties of $\text{Cr}^{4+}:\text{LiInGeO}_4$ and Characterization of a $\text{Cr}^{4+}:\text{Ca}_2\text{GeO}_4$ Laser," under the guidance of Dr. **Alexey Bykov** and Dr. **Vladimir Kartazayev**, research associates at IUSL. The faculty mentor of these students, Dr. **Sankar Sengupta**, supervised the students and participated in research himself. Associate Professor **Vladimir Petricevic** coordinated the effort. NASA Summer High School Apprenticeship Research Program (SHARP) supported the activities.

Karina Segal, another student from Riverdale Country School, carried out her research, "Raman Scattering Study of Crystals for Near Infrared Lasers and Amplifiers," in the group led by Dr. **M. Sharonov**. She was supported by the Center for Optical Sensing and Imaging, a NASA University Research Center (see the Newsletter, Volume 4) at CCNY. **Galen Leung** of Fort Lee High School evaluated miniature batteries to be used as power source in compact photonic explorers (CPE) under the mentorship of Mr. **J. Luo**, a research staff at IUSL. The research project on the development of ultra-small CPEs is supported by a multi-institution grant from the Infotonics Center of Excellence to a consortium of 7 New York State universities led by CCNY.

Enrichment Program

Gifted and talented high school students studied physics and astronomy here at CCNY for six weeks past summer as part of a City College enrichment program in mathematics and science. A total of 28 students from throughout New York City studied astronomy, visited the CCNY planetarium, "experienced" Newton's laws, and even made liquid nitrogen frozen juice treats. Associate Professor **Richard Steinberg** ran the program. **Sebastian Cormier**, a graduate student, and **Ricardo Gonzales**, an undergraduate Physics major assisted Dr. Steinberg.

Alumni Corner

Arthur Weglein: From Atomic Physics to Mission Oriented Seismic Research

Arthur B. Weglein holds the Hugh Roy and Lillie Crenz Cullen Distinguished Professorship in Physics, a university-wide chair, with joint appointments in the Department of Physics and the Department of Geosciences at the University of Houston. Dr. Weglein received his B.S. and M.A. degrees from CCNY in 1964 and 1969, respectively; and his Ph. D. in Physics from the City University of New York in 1975. His Ph.D. thesis, “*Optimized Average Excited States of Atom: Intermediate Energy Scattering*,” was written under the tutelage of Professor Marvin Mittleman. After two years as a Robert Welsh Postdoctoral Fellow at the University of Texas at Dallas, he joined the Cities Service Oil Company Research Laboratory in Tulsa in 1978 to pursue seismic petroleum research. He held industrial research positions at Sohio Petroleum Company Research Laboratory in Dallas (1981-85), and ARCO (1985-2000). He spent a sabbatical year (1989-90) as a visiting professor at the Federal University of Bahia, Brazil, and three years (1990-1994) on leave of absence as a scientific advisor at the Schlumberger Cambridge Research in Cambridge, England. He joined the University of Houston as the Margaret S. and Robert E. Sheriff Endowed Faculty Chair in Applied Seismology in 2000, and, was promoted to the University-wide Cullen Chair in 2001.

Dr. Weglein initiated the Mission-Oriented Seismic Research Program and industry consortium in 2001 to pursue “Research and development of new seismic technology that enables exploration and production of hydrocarbons.” Every major publicly traded petroleum company worldwide is a sponsor, as well as four foreign national oil companies. His strategy is to “identify and address problems whose solutions will have the highest impact on the ability to locate and produce hydrocarbons.” Dr. Weglein identifies “imaging at depth and delineating large contrast agents, with complex geometry, beneath a complex overburden, such as basalt, salt, karsted sediments, and volcanics,” as the highest priority issues. Initially seen as a heretic for his bold new ideas, Dr. Weglein’s work is now considered to be “unique, beyond even the best minds of our business,” according to the interview cited at the end of this article. The Society of Exploration

Geophysicists (SEG) honored Dr. Weglein as a SEG Distinguished Lecturer in Spring 2003. He has presented his Distinguished Lecture, “*A perspective on the evolution of processing seismic primaries and multiples for a complex multidimensional earth*,” in 25 SEG Sections in 6 countries. Dr. Weglein has been called to testify as an expert witness to U.S. House of Representatives Science Committee in 2003, and House Energy and Commerce Committee in 2004.

Dr. Weglein said his education at CCNY and the outstanding models of professors like Drs. Marvin Mittleman, Martin Tiersten, and Harry Soodak have been and remain important “to help us all understand, protect and support the role and responsibility of a university in our society.”

For more information on Dr. Art Weglein’s contributions see his web page http://www.phys.uh.edu/fac_pages/weglein/, and for a candid interview see “CSEG Interviews Art Weglein,” in *The Leading Edge*, p. 976, October 2003.

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