



Director's Matters

Guest column by Louis J. Lanzerotti, Chair, AIP Governing Board

Citizen scientists' positive influence on local issues

The retirement this year of the first physicist elected to Congress, nuclear physicist Vernon Ehlers, prompted me to reflect on the importance of the citizen scientist to society and our nation.

Congressman Ehlers's distinguished career and wide-ranging contributions were outlined by Fred Dylla in [AIP Matters on August 16](#). The citizen scientist designation, extensively examined by former Presidential Science Advisor [Neal Lane](#), is now frequently used to describe the largely volunteer efforts devoted by many of our scientific and engineering colleagues to public policy issues on local, state, and national levels.

One does not need to aspire to serve in a national elected office to make significant technical contributions to one's local community. Personally, I have been privileged to serve on the school board and the town council (as well as three years as mayor) of [Harding Township, NJ](#). In my township, physicists and engineers contribute importantly as volunteers on essential advisory committees such as the Environmental Commission, the Board of Health, and the Planning Board. The local volunteers largely do not self-identify as citizen scientists. Nevertheless, that is what they are. Those citizen scientists are invaluable for the insights and the analytical skills that they bring to the often highly technical and frequently politically charged local concerns. Technical aspects are often present in many community issues.

Just in the last few months, several issues brought before our advisory boards and the town council have required engineering and scientific expertise, such as details of a fertilizer ordinance, environmental designation and protection of wetlands, and the reported area coverage of existing cell towers and how the measurements are made. Taking a closer look at this last example, cell tower locations can provoke opposition by citizens who are concerned about appearances and, therefore, property values. Towers can also intrude visually on historic areas. In all tower application cases, the members of hearing boards must understand the technical data that are presented regarding the need for and location of a tower. Physical scientists scrutinize the technical information and evaluate such factors as tower height, geographical limitations on signal propagation, frequencies used, signal power, drive-by amplitude and phase measurements, and modeling analyses. Such analysis enables board members to make informed decisions and aids in their discussions with the wider public.

Unlike those involved in national technical advisory activities, the locally engaged citizen scientists often do not receive the same recognition for their public service. Rather, their rewards come from the satisfaction of making their hometowns better places to live. From my perspective, of equal importance is the recognition of their

fellow citizens of the value of scientific research and insights in resolving issues that concern the community. Such recognition can only serve to enhance the appreciation of all citizens for the importance of governmental support of science, technology, engineering, and mathematics (STEM) education and funding for the benefit of our town and our nation. This enhanced understanding is critical when citizens go into the voting booth to select their local, state, and national leaders.

AIP GLOBAL MATTERS

AIP engages with international vacuum community

The [18th International Vacuum Congress](#) just wrapped up in Beijing, China. Xingtao Ai (Chief Representative of AIP's Beijing office) and her assistant Linlin Wang staffed a very popular booth in the exhibit hall. They report, "Chinese researchers, professors and students visited our booth in high numbers to gather information on AIP and what AIP's Beijing Office does for Chinese physicists. Traffic



Xingtao Ai greets booth visitors and shares information about AIP products and services.



to the AIP booth exceeded that of other booths at the conference. *Applied Physics Letters*, *Journal of Applied Physics*, *Physics Today* as well as the Society of Physics Students arouse the most interest." Ai and Wang took the opportunity to promote [GradSchoolShopper](#), the Statistical Research Center's [Global Survey of Physicists](#), and [UniPHY](#). Similarly, the conference was a great venue for AIP to build contacts in the region; more than 1,500 booth visitors shared their email addresses with Ai and Wang. Greg

Exarhos (Immediate Past President of AVS), Angus Rockett (AVS President Elect), Joe Greene (AVS Councilor to the [IUVSTA](#)), and Bill Rogers (IUVSTA President Elect) attended the conference, and many other leaders in the field visited the AIP booth.

Exarhos spoke briefly about AVS activities in the publishing world and the "rebirth" of AVS journals, and reviewed the business model for



Biointerphases (an open-access journal). Exarhos expressed support for AIP's recent activity in China, noting, "With the opening of the Beijing office in June, AIP now has an active presence in China that will not only promote successful marketing of existing products but also stimulate nucleation and growth of new publishing concepts."



Greg Exarhos at the AIP booth.

PHYSICS RESOURCES CENTER MATTERS

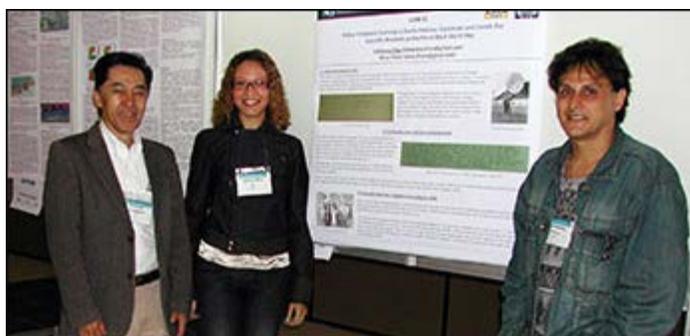
Science beyond borders: Geophysicists meet in South America

Center for History of Physics Director Greg Good traveled to Foz do Iguaçu, Brazil, earlier this month to take part in the [Meeting of the Americas](#) (August 8–12), joining more than 2,000 scientists from around the world to learn about recent developments in geophysics. The conference was cosponsored by the [American Geophysical Union](#) and many Latin American scientific organizations and governments.



In July 1949, *Physics Today* published an [article by Bart J. Bok](#) on UNESCO and international collaboration in science. Today, more than 60 years later, international collaboration among scientists is ongoing. But it is not on autopilot. The recent Meeting of the Americas beamed a spotlight on this question, dedicating a special session to discuss many aspects of international collaboration. Among the 12 speakers were Jack Hess (Geological Society of America), Pat Leahy (American Geological Institute), and Greg Good (AIP). Jack Hess discussed the complexity and successes of the recent [International Year of Planet Earth](#), with its effects in countries everywhere. The results will go to UNESCO with policy recommendations later this year. Pat Leahy argued that collaboration among divergent scientific societies is needed for tackling complex geo-

problems. Other speakers included Brazilian graduate students in history of physics from the Federal University of Bahia. One of these students, Indianara Silva (pictured in center), based her talk on materials she found in the Niels Bohr Library and Archives, while supported by a grant-in-aid from AIP's Center for History of Physics. The center sees

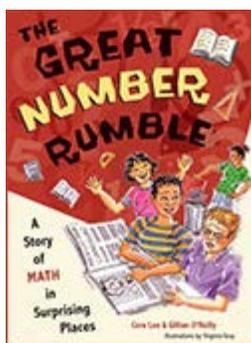


From left: Jaime U. Fucugauchi (AGU International Secretary and AIP Governing Board member) and Indianara Silva and Jose Clemente (PhD candidates in history of physics, Federal University of Bahia, Salvador, Brazil).

its cultivation of international activity as essential to its mission, and recognizes the special importance of encouraging the rising generation of historians of physics in Brazil, Europe, China, and elsewhere.

Focus on science writers at AAPT 2010 Summer Meeting

Children's book authors Cora Lee and Gillian O'Reilly, winners of the 2009 [AIP Science Writing Award—Children's Category](#), took part in a special panel discussion on July 20 during the [AAPT 2010 Summer Meeting](#). AAPT Executive Officer Emeritus Bernie Khoury moderated this lively discussion on the challenges and rewards of translating science for the general public and how to sell books, magazine articles, and newspaper stories.



AIP honored Lee and O'Reilly for their book [The Great Number Rumble: A Story of Math in Surprising Places](#) (Annick Press, 2007), which takes the reader on a journey as math gets banned at school, chaos rules, kids toss their textbooks, and the math-loving main character proves that life isn't half as fun without his favorite subject. Lee, a science writer and author of many articles in children's science magazines, believes that children are the perfect audience—willing to accept impossible answers and open to the most bizarre concepts that scientists can throw at them. O'Reilly has worked in the book industry for more than 30 years.

Her goal in writing nonfiction for children is to intrigue, entertain, and educate. Read more about these authors in the [AIP press release](#).

AROUND AIP

Innovation Station is a sensation!



From the left: iRex iLiad, Kindle DX, Palm Pre (above and in middle), Kindle 1, B&N Nook, Gateway Netbook, BlackBerry Storm (above Gateway), Sony Reader, iPod Touch (above and in middle on pad), Archos tablet running Android OS, and iPad.

On Friday, August 13, AIP Melville launched the "Innovation Station," a lounge where employees can relax and try out some of the newest technology. Based on a concept by Terry Hulbert (Director of Business Development) and James Wonder (Director of Emerging Technology), this room features gadgets such as an iPad, e-readers, a BlackBerry, and an iPod Touch, which are attached to charging mats and ready to use. The devices will be updated and upgraded as technology evolves, and new devices will be introduced as they become available. Users can familiarize themselves with the equipment and have the opportunity to view AIP's products on all the various devices on which our customers see them. It is hoped that using this center will inspire AIP staff to think up valuable new ideas and innovative ways to generate revenue or save money. A whiteboard and a suggestion board have been placed in the room so everyone can share ideas and questions. Technical help and advice will be provided upon request. The retro decor was handled by Production Operations staff members Barbara Carbonaro, Barbara Graham (who cut the ribbon at the ceremony), and Peggy McGinnis. Hulbert and Wonder demonstrated some of the gadgets at the launch.

We invite your feedback to this newsletter via email to aimatters@aip.org.

For past issues of this newsletter, visit the [AIP Matters archives](#).