

History of Physics Catalog Is Now On-Line

Locating historical physics collections is now a little easier, thanks to the recent launch of the World Wide Web version of ICOS, the International Catalog of Sources for History of Physics and Allied Sciences. Compiled by the American Institute of Physics' Center for History of Physics, ICOS lists information on over 500 repositories worldwide that contain the papers of individual physicists, astronomers and geophysicists, as well as oral history interviews and records of major institutions.

Even before its on-line debut, ICOS was widely used by historians. But accessing it was "quite clumsy," says Joe Anderson, assistant director of the history center. Users had to either go to the history center, in College Park, Maryland, or send in requests for staff members to research.

Physics historians have welcomed the on-line version. Finn Aaserud, director of Denmark's Niels Bohr Archive, considers ICOS "an invaluable source for any historian interested in any topic relating to the history of modern physics. . . . Getting the relevant information with a click of a button makes an enormous difference in my own work and undoubtedly in that of other historians." Aaserud is presently using it to research physicists' attitudes toward Niels Bohr's political activities during and after World War II, when Bohr envisioned creating an "open world." "Although we have mountains of documentation here on Bohr's effort from his own perspective, the only way to obtain an impression of others' opinions is to look at other collections," Aaserud explains. "And the best place to start looking is ICOS."

Using ICOS was never a problem for historian Nancy Greenspan, as she lives just 20 minutes by car from the history center. Even so, she is "quite excited" to have the catalog on the Web. In preparing a biography of Max Born, she was able to dig up some relevant correspondence tucked away in several Russian collections. "When I accessed it, I was sitting at my house, so I could take my time and just explore." With a list of references in hand, Greenspan could then contact the archives directly, to get copies of the actual documents.

The catalog can be reached through the history center's homepage at <http://www.aip.org/history/>. Additional information is available from the Center for History of Physics, AIP, One Physics Ellipse, College Park, MD 20740; e-mail nbl@aip.org. **JEAN KUMAGAI**

McNutt Will be Next AGU President-Elect

On 1 July, Marcia K. McNutt, director of the Monterey Bay Aquarium Research Institute (MBARI), will become president-elect of the American Geophysical Union. After serving her two-year term, McNutt will succeed John A. Knauss (University of Rhode Island) as AGU president.

McNutt, a marine geophysicist, earned her BA in physics from Colorado College in 1973 and her PhD in Earth sciences from the Scripps Institution of Oceanography in 1978. She then worked as a researcher for the US Geological Survey in Menlo Park, California, joining MIT's geophysics faculty in 1982. Last year, she left MIT to assume the directorship of MBARI. McNutt's research includes studies of the mechanical response of Earth's crust and upper mantle to tec-

tonic stress, and of the thermal structure of the oceanic lithosphere in the vicinity of hot-spot volcanoes.

In her candidate's statement, McNutt said that as AGU president she would aim to "make the expertise of AGU more widely available to Congressional staffers and administration officials prior to the drafting of legislation and policy statements." She also plans to push for greater recognition of the accomplishments of geophysics students and "to facilitate their search for fellowships, postdocs and other employment in areas beyond geophysical research and education."

Also taking office in July are John

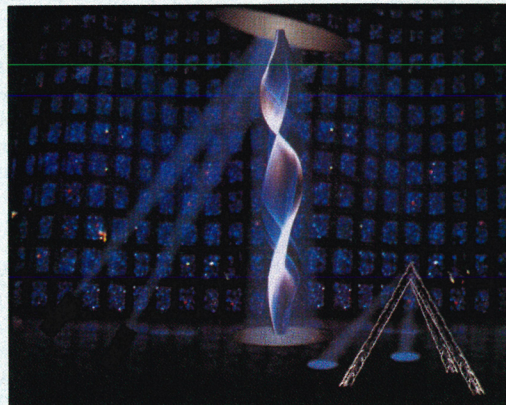


MARCIA K. MCNUTT

New York Exhibition Marries Art and Science

LightForms '98, an exhibition of interactive, light-based art, opens this month at the New York Hall of Science. Organized by the nonprofit group Art & Science Collaborations Inc (ASCI), the show features three large-scale installations chosen for both their scientific and aesthetic appeal.

British artist Paul Friedlander's "Dark Matter" is one of the featured works. "I'm an interdisciplinary person by nature," says Friedlander, who holds bachelor's degrees in both physics and fine art. "I see my work as exploring the areas of contact between art and science." As seen in the computer-rendered image at right, the central element of "Dark Matter" is an undulating, vaporuous waveform that rises seven meters from the floor. Friedlander created the effect by illuminating a spinning rope with a high-power arc lamp reflected off a Mylar mirror. The arc lamp (on loan from the rock



PAUL FRIEDLANDER

group Pink Floyd) has been configured to shift color rapidly, in sync with the rope's rotation. When the rope rotates fast enough (around 600 rpm), the human eye perceives a three-dimensional multicolored image. Visitors can trigger changes in the sculpture's color and shape by passing through a pair of sound beams, located in the triangular structure at the lower right.

"Dark Matter" and the show's other works will be housed in the museum's Great Hall, a setting that ASCI founder Cynthia Pannucci calls "one of the most appropriate spaces in the world for light art. It's like a humongous cave, or a cathedral." The only natural light entering the 24-meter-high interior is filtered through bits of cobalt-blue glass imbedded in the walls.

LightForms '98 will run from 17 April through 31 May; museum interpreters will be on hand to explain the science underlying each piece. The hall is located in the Corona Park section of Queens, New York. Information is available at the museum's Web site, <http://www.nyhallsci.org>, or by calling 718-699-0005.

JEAN KUMAGAI

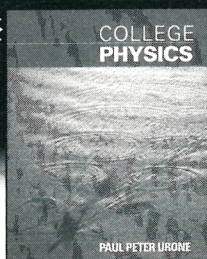
physics

(fiz'iks) noun

The science of matter and energy and of interactions between the two

**Discover
physics books
that go beyond the
definitions to explore
and reveal the wonders
of our universe**

New for
algebra-based
physics!



College Physics

by Paul Peter Urone
ISBN: 0-534-35190-5. ©1998.

A fascinating introduction to physics that exposes students to the world around them.

Also
New in
1998!

Physics: Algebra/Trig, Volume One Second Edition

by Gene Hecht
ISBN: 0-534-35412-2. ©1998.

A compelling revision that imparts all the grandeur, unity, and vitality of physics.

Professors call (800) 423-0563
for a review copy
To purchase, call (800) 354-9706



Brooks/Cole Publishing Company

Source Code 8BCPH010
511 Forest Lodge Road
Pacific Grove, CA 93950-5098
Fax (408) 375-6414
e-mail: info@brookscoble.com

Visit us on the Web!
www.brookscoble.com

©1998 Brooks/Cole Publishing Co.

A. Orcutt, director of the Institute of Geophysics and Planetary Sciences at Scripps, who will be AGU's general secretary, and Gordon Rostoker, a professor emeritus of physics at the University of Alberta, who will be the international secretary.

IN BRIEF

On 1 April, Alexander Bradshaw began a two-year term as president of the German Physical Society (DPG), succeeding Markus Schworer. A chemical physicist, Bradshaw heads the surface physics department at the Fritz Haber Institute in Berlin, and is an adjunct professor at both the Free University of Berlin and the Technical University of Berlin. British by nationality, he is the first non-German to head the DPG. Bradshaw plans to move the society—which has no archival journals of its own—into electronic publishing: For starters, the DPG, together with the UK's Institute of Physics, plans to launch an electronic journal later this year. Bradshaw also wants the DPG to do more for the growing number of physicists who are working outside of academia—in industry, banking, software development, teaching and other fields. “Many thousands are not members [of the DPG],” he says. “I feel we should help to represent them.”



A. BRADSHAW

The UK Astronomy Technology Centre opened at the Royal Observatory, Edinburgh on 1 April. It is intended to be the UK's main hub for the design and construction of instrumentation for ground-based astronomy, activities previously carried out at both the ROE and the Royal Greenwich Observatory. Adrian Russell, who heads up the UK's Gemini twin telescope team, is the UK ATC's first director. The center will have a staff of about 60 scientists and engineers, with most coming from the ROE and a few from the RGO. The Particle Physics and Astronomy Research Council's decision last summer to locate the UK ATC in Edinburgh has meant that the ROE can stay open. The RGO, on the other hand, is being disbanded (see PHYSICS TODAY, September 1997, page 60); at press time, the final fate of its name, staff and activities was still undecided.

In February, Germany's Max Planck Society turned 50. This birthday stamp shows the society's founders—Otto Hahn, fourth from right, was the first president; to his right are fellow Nobel laureates Max von Laue, Richard Kuhn and Adolf Windaus—plus an x-ray image of the Moon, an ion trap and a goldfish nerve that symbolize the breadth of the MPS's scientific research. The MPS started out—over



initial protests by the US and France—as a makeover of the Kaiser Wilhelm Society, which had been founded in 1911 but was closed down after World War II because of its involvement in research under the Nazis. By contrast, says spokesman Andreas Trepte, the new society maintained independence from the state and from industry from the outset. Now Germany's premier research organization, the MPS today has 80 research institutes spanning the physical, life and social sciences; 19 of them have been founded in the former eastern states since German reunification in 1990.

On 15 April, Vladimir Fortov, Russia's minister for science and technology, will lead off a 12-part television series on commercial applications of Russian scientific research. Fortov will speak on uses of intense shock waves for such things as chemical waste treatment, lightning simulation and synthetic diamond production. Second in the series, on 14 May, will be Zhores Alferov, vice president of the Russian Academy of Sciences and director of the A. F. Ioffe Physical-Technical Institute in St. Petersburg, who will discuss applications of semiconductor heterostructures. Sponsored jointly by the Russian Foundation for Basic Research and the University of Missouri—Columbia, the series will resume in October and continue monthly during the academic year. Topics will include commercial applications of high-performance aluminum and titanium alloys, surface modifications and thin films, nanomaterials and optical memory media. The aim of the broadcasts, says producer Richard Potter of the University of Missouri, is to attract Western investments to Russia, and to “alert the Western business and scien-