



PHYSICS CHANTEUSE Lynda Williams serenades Brookhaven's Melvin Month, during her recent performance in Berkeley, California.

aim is to entertain rather than educate: "I think so many subjects in science are interesting and fascinating that they have intrinsic entertainment value." In preparation for each show, she researches the conference topic by looking through journals and interviewing experts. She then composes songs and monologues keyed to the latest research. "I'm not a colleague *per se*, but I have enough background so that I know what I'm talking about."

She also weaves in references to politics and current events, and she plays on both sexual and physics stereotypes with abandon. "Doing my Physics Chanteuse act, I can speak to scientists and address issues that they might not ordinarily think about, like the social implications of what they do or the culture of science," says Williams. "It gives me creative license to say things in a nonthreatening way about issues that are controversial or speculative or humorous."

Her musical repertoire includes original work as well as reinterpretations of standards. For the Lincoln conference, she offered a rendition of Billy Joel's "I'm in a New York State of Mind": "Some folks like astronomy and study galaxies in the local group / Some like quantum gravity, pulling superstrings from the cosmic soup / But I'm pointing my laser at an earthly crystalline / I'm in a solid state of mind." In other songs, she deals with topics ranging from nucleosynthesis to vacuum physics to nuclear waste. "Science isn't sung about much in our popular songs, and so I think it's a great way to tell a story about the work that's going on," Williams says. "And it honors scientists' work too."

At a recent gig at the end of January, Williams performed for attendees at the US Particle Accelerator School in Berkeley, California, during an evening cruise aboard the *Empress Hornblower*. The school's director, Melvin Month of Brookhaven National Laboratory, "liked her show tremendously."

included a tribute to Carl Sagan, who died in late December. Williams says Sagan's unique gift for popularizing science had inspired her to write her first science-related song. At the time, she was a graduate student in physics at San Francisco State University. Prior to that she had worked for several years as a multimedia producer and performance artist, after earning her bachelor's degree in mathematics, with a physics minor, from California State University, Sacramento, in 1987.

"I'd been riding the fence between wanting to be a scientist and wanting to be an artist, and then I realized that I could merge the two together, as a science entertainer," Williams recalls. "Every time I would study something new, I would write a song about it. Eventually I accumulated enough material to put a show together." Among her earlier efforts was a one-woman musical called "Cosmic Cabaret," performed at Climate Theater in San Francisco. She also produced a show on the heliocentric model of the Solar System for the San Francisco State University planetarium.

Though not quite ready to quit her day job—doing engineering technical support for HotWired, the Web-based spinoff of *Wired* magazine—Williams hopes eventually to be doing science entertainment full-time. In addition to her Physics Chanteuse act, which is geared toward specialized crowds, she'd like to produce material aimed at the general public. She's currently at work on a short film, a spoof of the 1970s TV show *Charlie's Angels*. "It's called *Einstein's Angels*, and it features a trio of worldly women physicists who are hired to solve real physics problems—and take out the bad guys, too."

JEAN KUMAGAI

Lynda Williams's Web site is at <http://www.physics.ucla.edu/~ljw/>.

"Her voice is not totally polished," Month allowed, "but she's a great entertainer." Beyond that, he said, "her understanding of the dynamics of the field—the history and sociology of physics—is outstanding. I think she could teach some younger physicists a lot."

For her show in Berkeley, she

Canadian Accelerator Shut Down, Its Director Gets the Boot

Months of anxious waiting and steadily waning hopes that funds might be found to save the Tandem Accelerator Superconducting Cyclotron (TASCC), a world-class heavy-ion accelerator in Chalk River, Ontario, are now over: In mid-January, the Canadian government announced that no replacement funds had been found to keep TASCC running beyond this month (see PHYSICS TODAY, February, page 59). On 31 January, TASCC director John Hardy initiated shut-down procedures.

Later that same day, Hardy was given 25 minutes' notice to clean out his office, and told not to come back. The only explanation he got for the abrupt dismissal was a charge of "unauthorized media activities." Hardy says this refers to his having told reporters of his efforts to save the research facility, but protests that "I've said nothing that, until four or five years ago, wouldn't have been said by company management. It's a sad and degrading end to twenty-six and a half years at the company." A spokesman for Atomic Energy of Canada Ltd, TASCC's parent company, would say only that "the decision was made that John [Hardy] was not required anymore."

The 53 remaining employees (there were over 70 a year ago, when news of possible trouble first surfaced) are receiving termination notices. Most of the 17 physicists have found new positions—at least half of them outside Canada; some of the technical staff will transfer to other departments within AECL, which will now focus exclusively on its reactor business.

The news for AECL's other basic research program, the CMS neutron scattering program, is better: It will be transferred to Canada's National Research Council on 1 April. CMS will be funded jointly by NRC and several ministries for three years, and thereafter by NRC alone.

TONI FEDER

A Front-of-the-Envelope Calculation

Feynman on a postage stamp? A campaign to honor Richard Feynman thus is being spearheaded by Ralph Leighton, a friend and former drumming partner of Feynman's and the son of Feynman's colleague Robert Leighton.

Cryo

QUALITY

STEP

BY

STEP

BY

STEP



CUSTOM MANUFACTURE, DESIGN,
AND THEORETICAL ANALYSIS -
PERFORMANCE BY DESIGN.

FLOW CRYOSTATS AND CRYO
WORKSTATIONS

STORAGE DEWAR MOUNT
WORKSTATIONS

RESEARCH DEWARs AND
CRYOSTATS

LIQUID HELIUM TRANSFER LINES
HIGH VACUUM CHAMBERS
TEMPERATURE SENSORS
ELECTRONIC DIP STICK
CRYO CONTROLLER
DETECTOR DEWARs
PLUS MORE !!!!!

CRYO INDUSTRIES

of America, Inc.

11 Industrial Way
Atkinson, NH 03811

TEL: (603) 893-2060

FAX: (603) 893-5278

<http://www.cryoindustries.com>

QUALITY CONSTRUCTION WITH
LOWER PRICES THROUGH
EFFICIENT MANUFACTURING.



THIS DESIGN of a possible stamp is by Feynman enthusiast Scott Carter.

"He's arguably America's best-known homegrown physicist," says Leighton. Feynman won the Nobel Prize in Physics in 1965; he worked on the Manhattan Project in the 1940s and helped investigate the Challenger shuttle explosion in the 1980s. Leighton hopes a stamp would celebrate Feynman's spirit of adventure as well as his more obvious achievements, and also inspire more people to get excited about science.

The US Postal Service receives as many as 40 000 proposals for stamp themes each year. About 100 of them are culled by the Citizens' Stamp Advisory Committee, a body of 13 people representing the performing arts, sports, education, finance and other areas. "We try to cover everything

every three to four years," says committee member Mary Ann Owens. (Owens's area is "topicals," which, she explains, includes things like flora and fauna, as well as scientists.) Theoretical aerodynamicist Theodore von Kármán was the last physicist to appear on an American stamp, in 1992.

Feynman will be eligible to be on a US postage stamp as of next year, ten years after his death, but the committee is already selecting stamp themes for 2000 and beyond. For more information about the campaign to issue a stamp portraying Feynman, write to Ralph Leighton, Friends of Tuva, PO Box 70021, Pasadena, CA 91117; e-mail fot@lafn.org.

TONI FEDER

IN BRIEF

On 19 February, M. R. C. (Marci) Greenwood, chancellor of the University of California, Santa Cruz, took office as president-elect of the American Association for the Advancement of Science. Greenwood, a biologist by training, served as associate director for science in the White House Office of Science and Technology Policy during President Clinton's first term. ■

Web Watch: Atom Lasers and BEC

All links mentioned in Web Watch are included on PHYSICS TODAY's home page, <http://www.aip.org/pt/>. This month's focus is sites related to atom lasers and Bose-Einstein condensation (see the reports beginning on page 17). If you have suggestions for other topics or sites to be covered in Web Watch, please e-mail them to ptwww@aip.acp.org.

All of the following sites include links to relevant research papers (generally in postscript format) and graphics displaying experimental or theoretical results.

▷ <http://amo.phy.gasou.edu/bec.html/> The Georgia Southern University BEC home page aims to be the BEC home page and has links to web pages of numerous BEC researchers and groups. Of particular use is the bibliography, <http://amo.phy.gasou.edu/bec.html/bibliography.html>, which includes a large and up-to-date selection of press accounts related to atom lasers and BEC in general and a huge list of technical papers available on-line. A list of meetings at <http://amo.phy.gasou.edu/bec.html/conferences.html> also includes upcoming individual local seminars.

▷ <http://bec.colorado.edu/> The page of the JILA group in Colorado that first created a dilute gaseous Bose condensate includes a press release of the original 1995 discovery and a list of the group's papers. This site is best viewed with frames. If you don't have frames, go to <http://bec.colorado.edu/index.html> instead.

▷ <http://bink.mit.edu/dallin/nat.html> Comprehensive summaries of the work of the MIT group led by Wolfgang Ketterle can be found at this site. The descriptions include movies (using QuickTime and MPEG format) showing sequences of experimental results. Novices can start with an introductory page that answers basic questions, or follow links to it as needed. The main group page is at <http://amo.mit.edu/Ketterle.html>.

▷ <http://atomcool.rice.edu/bec/bec.html> BEC in general and the lithium experiments of the Rice University group are discussed at this site. The level ranges from an explanation of BEC for nonphysicists to postscript versions of their research papers. In early February, the site was still under development.

Compiled by GRAHAM P. COLLINS

