

brought against Hadizadeh, who is 54 years old. He had open-heart surgery 10 years ago and, since his arrest, he has developed diabetes and other health problems, according to his wife. He has spent his imprisonment mostly in solitary confinement at an unknown location.

Iran's physical society, its science ministry, and science academies, human rights organizations, and individual scientists from around the world have been pleading with Iranian authorities for Hadizadeh's release. Brazilian physicist Aldo Craievich, for example, canceled a trip to Iran in July, writing to Reza Mansouri, who heads the Physical Society of Iran, "I presently feel that I should not visit your country while Prof. Hadizadeh, a serious scientist that I appreciate and the person that invited me, is under arrest." And more than two dozen Nobel laureates signed a private letter to Khatami urging that Hadizadeh be released on humanitarian grounds.

In late August, a few of the other detainees were released, raising hopes that Hadizadeh would be freed soon too. "Every moment we are expecting him to ring us," says Hadizadeh's wife. "But there is nothing yet."

TONI FEDER

Superstring Theory Is a Theatrical Hit

A play about a suicidal astrophysicist, based loosely on Shakespeare's *Hamlet*, is proving to be a critical and financial success at London's Royal National Theatre. *Humble Boy*, Charlotte Jones's new comedy, is a scientific fantasy and a tough family drama.

Felix Humble, played by Simon Russell Beale, is a theoretical astrophysicist in his thirties who has returned home for the funeral of his father, a biologist and beekeeper. Like many scientists depicted in popular culture, Felix has bad fashion sense, although instead of the lab coat, he wears ill-fitting cricket whites. He discovers that his mother Flora (Diana Rigg) intends to marry George Pye, a suitor he loathes. Complicating matters, Felix earlier had an affair with George's daughter Rose, who gave birth to a child he has never known.

The play tries to convey Felix's excitement about trying to work out, as the character says, "a unified field theory that will reconcile relativity and quantum mechanics," and the split desire he feels for loneliness

Professor Surveys Physics Faculty Makeup

The ones and zeros in the table compiled by Donna Nelson don't come as much of a surprise. But they are a stark reminder that the overwhelming majority of physics professors at top US universities are still white men. Earlier this year, Nelson, a chemistry professor at the University of Oklahoma, surveyed the makeup of faculty in chemistry and chemical engineering by rank, race, and gender for the country's 50 best-funded universities. Now she has done the same for physics.

The 50 universities surveyed have a total of 1987 physics faculty members. The full data can be viewed online at <http://www.awis.org/statistics/physicsTable.html>. Here are some highlights:

- ▷ Of the physics faculty members at the 50 universities, 131, or 6.6%, are women.
- ▷ Twelve physicists at the 50 universities, or about 0.6%, are African American. They are all men.
- ▷ Half of the 10 Hispanic physics faculty members are women.
- ▷ There is one Native American physics professor at the universities surveyed; he is at Yale University.
- ▷ Asian Americans represent 11.2% of the physics faculty; of those, about 10% are women.

"Nelson's data agree pretty well with ours," says Rachel Ivie of the American Institute of Physics's statistics division. (AIP's most recent report on employment by gender and race, *2000 Physics Academic Workforce Report*, is available on the Web at <http://www.aip.org/statistics/trends/reports/awf01.pdf>.) "What Nelson has that we don't is women by race and the breakdown by rank," says Ivie. Most black academic physicists are at historically black colleges and universities, Ivie adds. "The question is, Why are they there? Are they not going to the top 50 universities because they don't get offers, or because they choose not to? I don't think anyone knows the answer."

Nelson, who is one quarter Native American, started doing her own surveys after seeing one that showed the breakdown of chemistry faculty by gender and wondering why it didn't look at minorities. She compiled the data by sending out questionnaires and then following up aggressively. When universities didn't respond, she says, "We got the information from the Web and from talking to people in the department. That's how we got a 100% response rate." Physics, she adds, "is doing a pretty good job in using the available female base, but it lags in hiring minorities." One surprising result, Nelson says, is that chemical engineering outstrips both chemistry and physics in hiring from their respective pools of African American PhDs.

"My students were extremely interested in the surveys," says Nelson. "I think the females have been taught they will have a full chance, and they expect it. And when they see this sort of statistics, they are even more outraged than professors. All I am asking is for people to listen—and not to punish females and minorities when they try to discuss the disincentives for going into these fields."

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CHRIS BRAMMER

NELSON

and companionship.

"There aren't many playwrights bold enough to relate personal relationships to cutting-edge theoretical physics," Beale told the *Guardian* newspaper. All the actors had lessons in physics during rehearsals to help them understand superstring theory.

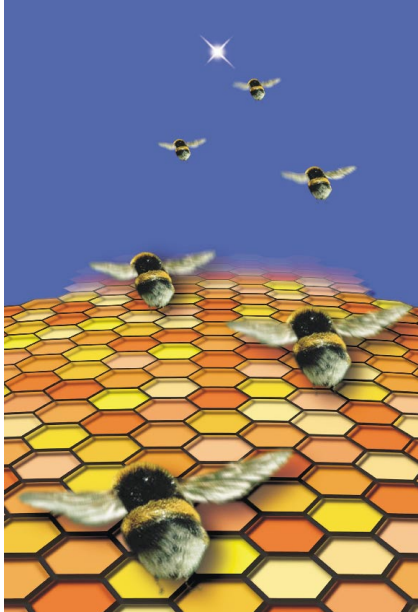
Jones says that she decided to

write a play about a physicist after she visualized a man pottering around the garden like a bumblebee, and "according to the laws of physics, the body shape of the bumblebee should make flight impossible." The idea of incorporating superstring theory came after she heard string theorist Brian Greene from Columbia University in New York discuss his book, *The Elegant Universe* (W.W. Norton & Company, 1999), on the radio.

"I have been surprised and gratified by the number of undertakings in the arts of late that have some connection to string theory," says Greene. He points to a dance piece in New York, an independent movie being shot in Los Angeles, and a play called

Feynman in New York

"QED," with Alan Alda starring as Richard Feynman, will run in Lincoln Center's Vivian Beaumont Theater in New York on Sunday and Monday evenings until 17 December. The play opened in California this past spring (see PHYSICS TODAY, April 2001, page 29).



PLAYBILL FOR *HUMBLE BOY*, which is causing a buzz in London.

Calabi-Yau, which have all been inspired by the theory. "All these works really speak to the way these ideas about how the universe is structured strike a deep, resonant chord in the human spirit," says Greene. "Many, if not all of us, are searching in one way or another for the truth."

Humble Boy is sold out through the end of November. After that, it's expected to move to the center of London's theater district, the West End. Further details are available online at <http://www.nationaltheatre.org.uk>.

PAUL GUINNESSY

NEWS NOTES

Instrumentation fellowship. In what may be a first, a new fellowship at the University of California, Santa Cruz, is designed to support graduate work in astronomical instrument building.

In 1996, Sally Bachman Allen, reacting to an article in her local paper, sent a small sum to UCSC toward repairing the dome of the oldest telescope at Lick Observatory on Mt. Hamilton, some 30 kilometers east of San Jose. With her contribu-



LIICK OBSERVATORY/UCSC

tion, she included a note saying that her grandfather, Henry Bachmann, had been an instrument maker for the observatory in the early 20th century.

Enter university development officers. They did their homework, turning up, among other relics, a spectrograph built by Bachmann, photos, and even people who knew him or Allen's father, who grew up on the mountain. It wasn't hard to persuade Allen and her banker husband, C. Donald Allen Jr, to endow a chair for astronomical instrumentation. The Allens' \$350 000 gift includes an annual graduate fellowship. "I wanted to do something that would honor both my father and my grandfather, and hopefully attract graduate students who have talent but not necessarily funding," says Allen.

Lick director Joseph Miller is the first Bachmann Professor, and the first recipient of the chair's accompanying stipend is his student Andrew Sheinis, who has designed and built instruments for the Keck telescopes.

Astronomy award founded. Virginia Trimble is donating \$100 000 to fulfill a wish of the American Astronomical Society. The gift will establish the Joseph Weber Award for Astronomical Instrumentation, named in honor of Trimble's late husband, who was perhaps best known for his pioneering work on detectors for gravitational radiation. "Both astronomy and

physics tend not to recognize very well the absolutely essential people who can build things and make them work. . . . [Weber] unquestionably belonged to that small fraternity," says Trimble, an astronomer who splits her time between the University of California at Irvine and the University of Maryland, College Park. "Often the people who have used instruments to do the science get the recognition, and those who have built the hardware get overlooked," adds AAS executive officer Robert Milkey. "The recognition of those who have propelled astronomical observation through the development of innovative instrumentation is the goal of this award." The AAS has not yet determined the cash value of the annual award, for which the first winner will be announced next year.

New DTRA Director. Physicist Stephen Younger has left his position as senior associate laboratory director for national security at Los Alamos National Laboratory to become the new director of the Defense Threat Reduction Agency. DTRA is the agency charged with reducing the threat to the US from nuclear, chemical, and biological weapons of mass destruction. Younger was appointed by Secretary of Defense Donald Rumsfeld in early August and took over the leadership of DTRA on 1 September.

Younger, who holds a PhD in theoretical physics from the University of



Web Watch



<http://near.jhuapl.edu/ioc/20010731>

On 12 February, the NEAR spacecraft broke out of its orbit 5 km above the asteroid Eros to head on a collision course for the asteroid's surface. Throughout NEAR's descent, the spacecraft's Multi-Spectral Imager (MSI) took pictures of the approaching surface. The online movie **MSI Final Descent** captures this final phase of the NEAR mission.

<http://www.inquinamentoluminoso.it/dmsp>

Because of street lights and other forms of artificial light, about one fifth of Earth's population can't see the Milky Way unaided. The University of Padua's Pierantonio Cinzano and his collaborators reached this sobering conclusion by calculating, for any spot on the globe, the overhead brightness of the night sky due to artificial light. Their calculations, which are based on remotely sensed data, are available in the form of the online atlas **The Night Sky in the World**.



<http://hoaxbusters.ciac.org>

From the US Department of Energy's Computer Incident Advisory Center comes **Hoaxbusters**, a Web site devoted to combating the pernicious problem of hoax e-mail. Among the actual e-mails documented on the site is the chilling but false "Flesh Eating Bananas Hoax," which you can find under the Urban Myths category.



To suggest topics or sites for Web Watch, please e-mail us at ptwww@aip.org.

Compiled by CHARLES DAY