

and their survivors. Quite understandably, other Chinese students do not want Lu's actions to be interpreted as those of a typical Chinese. The Iowa physics and astronomy department currently has 10 graduate students from the PRC.

The memorial service for Shan, the last of the victims to be buried, was delayed until 15 November, so that his brother could arrive from China. The award that had become the focus of so much bitterness and pain was presented to Shan's widow, Yilang Yang, ten days later, on what would have been his 27th birthday.

—JEAN KUMAGAI

QUESTIONS RAISED ABOUT BEIJING CONFERENCE

The American Physical Society's Committee on the International Freedom of Scientists has raised questions about participation in an international conference on semiconductor physics, which is to take place next August in Beijing, with the sponsorship of the International Union of Pure and Applied Physics. The questions concern the safety of Chinese wishing to return to the People's Republic for the conference, in light of the fact that several Chinese physicists—Liu Gang, Wang Juntao and Wang Youcai—have received stiff prison sentences for participating in the 1989 movement that culminated in the demonstrations and crackdown at Tiananmen Square.

The concern of the APS human rights committee and other human rights organizations arises from a letter addressed to conference organizers in November 1990 by He Jinqi, director general of the department of overseas students in the PRC's state education commission. He Jinqi said it was the government's policy not to hold responsible students studying abroad who had made "rash statements" or "engaged in rash activities" during the 1989 student insurrection. But He Jinqi immediately added that China would welcome those who joined anti-government organizations, *provided* they "break away from those organizations and end activities designed to oppose the People's Republic of China."

Together with the Committee of Concerned Scientists, the New York Academy of Sciences and the Royal Swedish Academy of Sciences, among others, the APS Committee on the International Freedom of Scientists has written to IUPAP officers pointing

out that the policy enunciated by He Jinqi would appear to be in clear conflict with the principle that participation in IUPAP conferences must not be limited by political considerations. Responding to such entreaties, Lu J. Sham of the University of California, San Diego, who chairs the IUPAP semiconductor commission, has said in a number of letters that the commission is closely monitoring preparations for the conference to assure free access and that the conference organizers will provide overseas Chinese scholars wishing to attend with advice and assistance.

The human rights groups, in turn, have complained that the PRC has not provided a list of "anti-government organizations" and that, under the circumstances, any Chinese student or scholar who had engaged in political activities during the past few years would be ill-advised to attend the conference. The human rights groups have taken the position that IUPAP should demand from the Chinese government, as a condition of its continued sponsorship, a written statement of policy assuring free entry and exit to all Chinese scientists who are qualified to attend the conference.

At an IUPAP meeting in the early fall, it was decided that the organization's secretary general would write to Chinese authorities restating IUPAP's conditions for conference sponsorship, that IUPAP would continue to monitor conference preparations and that it would withdraw sponsorship if anything was amiss.

SURVEY FINDS GLOOMIER JOB MARKET FOR PHDS

The first signs of the recession's effect on the physics job market have turned up in the latest graduate student survey conducted by the American Institute of Physics. The survey, which polled all physics and astronomy graduate students studying in the US in 1990, found among other things a rise in the percentage of physics PhD recipients who received no job offers and a drop in the average salary for those who did find work. Additionally, the number of industrial openings for new physics PhDs fell by 13% and for physics master's degree holders by 17%.

One measure of the health of the job market is how many job offers graduates receive. The proportion of doctorate recipients who had no job offers rose from 7% in 1989 to 12% in

1990, while those who got more than one offer fell from 48% to 38%.

Among those physics PhDs who did find potentially permanent work, average monthly salaries were \$3500 in 1990, compared to \$3540 the previous year. For those accepting postdocs, the median salary was \$2420 per month in 1990, a 5% increase over the 1989 median salary of \$2310. Master's degree recipients fared somewhat better, with a median monthly salary of \$2760 in 1990, compared with \$2600 the previous year. And, in contrast to previous years, astronomy postdocs in 1990 commanded salaries as high as those of physicists; permanent positions in astronomy had median monthly salaries of \$3000.

Although industry continued to be the number-one source of potentially permanent jobs for new physics PhDs in 1990, there was a six-percentage-point drop—from 46% to 40%—in the proportion hired by industrial firms. Those who found permanent work at Federally funded research centers fell from 12% in 1989 to 8% in 1990. Among physics master's degree recipients, the proportion employed by industry fell from 58% to 48% during the same time period.

During the past decade American physics PhD recipients have increasingly opted for postdocs. Among the 1990 physics doctorate recipients who were US citizens (710 of the 1183 PhDs), 60% took postdoctoral positions and 34% found potentially permanent jobs. In 1980, in contrast, US physics PhDs accepted permanent jobs over postdocs by a ratio of 3:2. In the past five years alone the number of US citizens accepting physics postdocs rose by 40%.

Among foreign students who earned physics PhDs in 1990, 67% accepted postdocs, while 27% found permanent work. The report noted in particular the rise in the percentage of foreigners hired by US companies—from 13% to 18%. This rise is noteworthy given that employers must go through a more expensive and time-consuming process to hire noncitizens, says Susanne D. Ellis, the survey report's senior author.

The number of years needed to complete a physics PhD has risen in the past decade, the survey found. In the class of 1990, the percentage of PhD recipients who spent five years or less in graduate school before earning their degrees was 28%. But in the class of 1985, 42% of the PhD recipients took five years or less, and among those who graduated during the early 1980s, the percentage ranged from 38% to 46%.