

tion started with Yuri Andropov and that both Andropov and Mikhail Gorbachev came to power in close alliance with the KGB. Orlov emphatically took issue with the first view.

"The KGB tries to pretend that what Gorbachev is doing now started under Andropov. What was under Andropov was strengthening the borders and strengthening the Russian discipline. You can't call this liberalization."

As for KGB support for Gorbachev, Orlov said, "The KGB has long thought was that all problems encountered by the Soviet Union, or all the reasons why the Soviet Union is behind the West, are due to the middle-level workers, the bureaucratic level. As long as Gorbachev tries to struggle with this middle bureaucratic level, the KGB supports him."

"But it's evident that Gorbachev transcends this simple idea and goal. Or maybe it's not his goal to go further; the current of events makes him go further."

"We have to remember public opinion in the Soviet Union—some things

which several years ago were discussed only among dissidents now are discussed among very broad circles of the intelligentsia. [And] in circles of Western public opinion, while ten years ago only a very few individuals in the West spoke about human rights in the Soviet Union, now it is a subject of discussion almost everywhere, and that also is a very important influence on the Soviet Union."

"Now the issue of human rights is a part of official policy in many countries and many states, and it started in the United States during the Carter Administration. This process leads to improving the human rights situation in all countries in the world."

Marchenko. We asked Orlov whether he would like to say something about Anatoly Marchenko, who died last 8 December in the 6th year of a 15-year prison term for spreading "anti-Soviet propaganda." Marchenko was a worker-dissident who wrote an account of the post-Stalin era labor camps and joined the Helsinki monitoring group in 1976.

"Yes of course," Orlov said. "Marchenko joined the Helsinki group when he was in exile, and this is very unusual because usually people are more inclined to conduct human rights activities either when they're free or when they're in the camp. Exile is a kind of situation where people understandably find it hard to risk being imprisoned."

"Marchenko was a very bright and courageous person. Many people did not understand his position in relation to emigration. He believed that every Soviet citizen should have the right to leave the Soviet Union and return to the Soviet Union. But for himself personally, he didn't want to leave the Soviet Union. He wanted to continue human rights activities inside the Soviet Union."

Referring to the element of self-sacrifice in the conduct of the Moscow dissidents, Orlov said, "They have thrown themselves on the barbed wire in the hope that someone could cross later, moving over their bodies. So that then we can overcome."

—WILLIAM SWEET

Advances in superconductivity challenge APS communications

Page 381 of the March *Bulletin of the American Physical Society* contained the following four-line announcement: "Special panel discussion of the division of condensed matter physics: High T_c superconducting materials. Trianon Rendezvous." That and an equally terse announcement on page 744 were the sole references in the 632-page *Bulletin* to the meeting on superconductivity, but they were enough to attract the attention of thousands of physicists, who found themselves crowding the corridors of the New York Hilton late in the afternoon of 18 March. "Doors will open at 6:45," signs said, reinforcing an atmosphere that was more like a Broadway opening than a normal APS session (see PHYSICS TODAY, April, page 17).

Organizing an extremely short notice what turned out to be an eight-hour session with 53 presentations was a formidable challenge for APS officers and officials. Even before the special superconductivity session was arranged, 3300 invited and contributed papers had been sorted and scheduled for 330 sessions at the March meeting. The March meeting on condensed matter physics generally has set a record for numbers of papers and sessions in recent years, and this year's meeting was no exception.

The initiative for the high- T_c superconductivity session came from Paul Chu of the University of Houston and

Neil Ashcroft of Cornell University, the outgoing chairman of the APS division of condensed matter physics. About a week after returning to Ithaca in early December, having just presided over the exhausting job of sorting and scheduling papers, Ashcroft received a call from Chu asking him what he would think "if I said I had a 41-K superconductor." Ashcroft said, "Incredible, tell me more," and Chu proceeded to tell him about the major advances achieved in Switzerland, China, Japan and at AT&T Bell Labs.

Ashcroft discussed the situation with members of the division's executive committee and decided to squeeze in a panel on high- T_c superconductivity, followed by a discussion period in which anybody would have the opportunity to report results. "I wanted to avoid disenfranchising anybody," Ashcroft says. Chu assisted with the selection of the initial speakers.

Ashcroft asked M. Brian Maple of the University of California, San Diego, the incoming chairman of the division of condensed matter physics, to head the panel. As soon as they made their plans known, Ashcroft and Maple were inundated with phone calls, and by the end of January it was apparent to Ashcroft that the session "might go off like a rocket."

By this time, Ashcroft and Maple were in almost daily contact with James Spellos, the APS meetings man-

ager, who had the foresight to schedule the session for a large room in the Hilton and then to move the session to the still larger Sutton Complex as it became apparent that attendance would be enormous. Participants in the APS meeting were polled during registration on whether they intended to take in the superconductivity session.

The breakthroughs in high-temperature superconductivity, which were being compared in the corridors to the inventions of the transistor and the laser, were a windfall for the organizers of a historical session on "75 years of superconductivity," which was scheduled for the day before the session on high- T_c superconductivity. A very large crowd packed itself into the Trianon Rendezvous to hear presentations the evening of 17 March by Per F. Dahl (Brookhaven National Laboratory), Gordon Baym (University of Illinois), Robert Schrieffer (University of California at Santa Barbara) and Philip W. Anderson (Princeton University).

Videotape. APS has made available a videotape of the 53 presentations made during the evening session on high- T_c superconductivity. Six hours long, the videotape is a complete recording of all the speakers at the session, including all the slides and graphs presented. The tape has been edited to remove long pauses between speakers, and speakers and their institutions are



A sense of the historic as much as scientific curiosity brought thousands of physicists to the unparalleled evening session on high-temperature superconductivity that took place on 18-19 March in the New York Hilton, where The American Physical Society was holding its March meeting. As roughly 2000 people squeezed into the Sutton Complex, designed to seat 1000 (above left), hundreds more crowded into the corridors to watch the presentations on closed-circuit television. Above right, Karl Alex Müller (IBM Zurich) chats with Shoji Tanaka (University of Tokyo) at the superconductivity session. They opened the session and were among the participants the following day in press conferences, among the best attended in the history of APS conferences.

identified in titles. Questions from the audience and replies also are included.

The tape is available in $\frac{1}{2}$ -inch and $\frac{3}{4}$ -inch formats for American videotape players; APS can provide other formats if there are enough requests.

Before the March meeting was over, according to APS Executive Secretary W. W. Havens Jr, APS staff and officers had received about 500 requests for information about the videotapes. For an order form, write to High-Temperature Superconductivity Tape, APS, 335 East 45th Street, New York NY 10017, or call (212) 682-7341.

Journals. The situation in superconductivity also has created an extraordinarily challenging situation for *Physical Review Letters* and *Physical Review B*, which have been flooded with submissions, many of them of exceptional importance and interest. At this writing, *Physical Review Letters* has received about 115 submissions, and *Physical Review B* about 305.

To cope with the situation, the editors have established a special panel to review manuscripts, consisting of four experimental physicists and one theorist. The members are anonymous.

To assure that manuscripts are dealt with expeditiously, they are being sent back and forth between the panel members and the journal offices by overnight mail. Some authors have been so eager to see their articles promptly published that they have hand-delivered their manuscripts to the journal offices.

Consistency of judgment is safeguarded by batching candidate manu-

scripts for each issue of each journal. After the panel has made its recommendations on how the manuscripts in each batch should be handled, Peter D. Adams, APS deputy editor in chief at Ridge, Long Island, and Myron Strongin of Brookhaven National Laboratory review all the manuscripts. Strongin is one of four part-time acting editors who are filling in this year for Gene L. Wells, a regular editor of *PRL* who is on sabbatical this year.

Employment survey finds market strong as ever

The latest AIP employment survey, which is based on a survey of 1985 physics graduates done in winter 1986, describes a job market that in some respects is even stronger than the year before. Among those who earned PhDs in 1985 (excluding postdocs), over 90% of those who responded to the survey had found jobs within six months of graduation. Over 50% of the master's recipients and nearly 70% of the bachelor's recipients had jobs within two months.

Of the PhDs, six months after graduation, 51% had accepted postdocs and 47% potentially permanent jobs. Less than 1% were not yet employed and still seeking a position. Newly employed PhDs in potentially permanent jobs earned a median monthly salary of \$3120, physics postdocs \$1950 and astronomy postdocs \$1815.

Like earlier editions, the survey of 1985 graduates shows that while post-

docs earn lower salaries than physicists in potentially permanent jobs, they are more likely to be doing research in their dissertation subfields.

The physicists in potentially permanent jobs, on the other hand, were much more likely to be working outside their dissertation fields than in them. The exceptions were those working in solid-state physics and in plasmas and fluids, who had a 50% chance of still being in their dissertation fields.

Physics masters earned a median monthly salary of \$2445 in newly accepted jobs. The median ranged from \$1575 in secondary school teaching to \$2500 in industry. Compared with their counterparts of the year before, the 1985 masters were more likely to work for the government, especially the military, and less likely to work for industry.

The 1985 bachelor's degree recipients earned a median monthly salary of \$1920 in newly accepted jobs and \$2100 in jobs already held.

The 1985 employment survey is available free of charge from Susanne D. Ellis, Education and Employment Statistics Division, AIP, 335 East 45th Street, New York NY 10017.

Massey is AAAS president, Trivelpiece executive officer

Walter E. Massey, professor of physics at the University of Chicago and the university's vice president for research and for the Argonne National Laboratory, is the new president-elect of the