



SCHOPPER

rector of the Erice summer school and president of the European Physical Society. Rumors had been circulating that HERA, an electron-proton ring to be built at DESY, would compete with LEP, the large electron-positron ring CERN is planning to build in the hunt for the intermediate vector boson, Z^0 . The fears arose because the first of HERA's two stages would also be an electron-positron collider and may be completed years before LEP.

The Italians were also concerned that Schopper would have a conflict of interest coming to CERN from DESY, in that DESY, they thought, may have to compete with CERN for Germany's high-energy physics dollars in coming years.

The matter of a new director-general was raised at a December meeting of the Committee of Council. The Italians insisted that before a vote was taken, the Committee first discuss future scientific programs at CERN, especially as they related to national programs like HERA. Instead, the Committee held a vote on the nomination first, and the Italian delegation left the meeting and withdrew Zichichi's name from the ballot. "I didn't want to be director of a laboratory without a program," Zichichi told *PHYSICS TODAY*.

Although Italy's vote was not required to elect Schopper, the vote was postponed until February, when Schopper was called into the Committee. Schopper explained that, even during its e^+e^- stage, HERA will not operate at energies high enough to produce the intermediate vector boson, and therefore will not be competitive with LEP. Current expectation for the mass of the Z^0 is about 89 GeV. HERA will operate at only about 35 GeV on 35 GeV. Schopper also stated that LEP could be operational at a one-sixth stage with 16 MW of rf power (giving an

energy of 50 GeV in each beam), by 1986, much earlier than previous estimates had projected. In short, Schopper convinced the CERN delegates that, if made director-general, he would not be the "trojan horse" some had feared, and the vote taken at that meeting was unanimous in his favor.

Most observers agree that the trouble was concentrated in Italian political circles, not in the scientific circles, and some trace Italy's aggressiveness to its new minister for scientific research, Vito Scalia.

Although Scalia had at one point threatened to pull Italy out of active participation at CERN, it seems clear that there is no longer any real danger of that happening. CERN's winter tempest seems to have abated, and some even feel the controversy may have had a salutary effect, airing grievances and revealing strengths and weaknesses. —MEJ

Salam gives Nobel award to aid third-world scientists

Abdus Salam, one of the three winners of the 1979 Nobel Prize in physics (*PHYSICS TODAY*, December, page 17), has contributed his share of that prize to establish an international talent fund for young scientists from developing countries. Speaking before the UNESCO executive board, Salam cited the great disparity between the opportunities available to scientists of the developed "North" and scientists from Third World nations. At present, he noted, the International Centre for Theoretical Physics in Trieste, Italy, which Salam helped to establish in 1964 and which has a budget of \$1.5 million, is all that is available to physicists in 100 developing countries. "Compare this with European joint projects involving physics... [that are funded at] \$500 million annually. Somehow, somewhere, a break must come," he said.

Salam appealed to all nations of the world to work towards closing the gap, but he made a special appeal to the OPEC Islamic countries, whose "forebears were the torchbearers of international scientific research in the 8th, 9th, 10th and 11th centuries."

The fund proposed by Salam would provide for the education, through the doctoral level, of selected young science students from the developing world who demonstrate sufficient talent. "My humble contribution to this fund will be all I possess—the \$60 000 the Swedish Academy has so generously awarded me," Salam told the UNESCO gathering.

The community at Trieste has expressed support for the idea, but there has not yet been a response from other

individuals or countries. "If I fail in raising funds from other sources," Salam told *PHYSICS TODAY*, "I shall use my funds for a trust principally, though not exclusively, for my home district of Jhang in Pakistan."

NSF theory institute seeks suggestions for programs

The National Science Foundation's Institute for Theoretical Physics in Santa Barbara, California, is once again inviting the physics community to submit proposals for research programs. Proposals should be submitted as early as possible and no later than 1 August for programs that would last between six and eighteen months, beginning September 1981.

Criteria used in the selection process include conceptual and/or methodological significance, timeliness, relevance to experiments or observations, interdisciplinary character and availability of suitable leaders and participants. Recommendations should include references to these criteria, especially suggestions for possible leaders and senior participants, and should be addressed to Walter Kohn, Director, Institute for Theoretical Physics, University of California, Santa Barbara, California 93106.

Programs now underway or planned are: field theory—high-energy and condensed-matter physics; nuclear astrophysics; quantum gravity, valence fluctuations in solids; gauge field theories; the early universe; interactions of nuclei at medium and high energies, and nonequilibrium processes.

The institute also organizes workshops, meetings and summer research conferences.

Private sector takes the lead in R&D increase

National R&D spending levels have begun to advance following a long period of reduced support, according to *Science Indicators 1978*, the National Science Board's biennial assessment of the health of US science and technology. The report uses a variety of quantitative, mostly economic, measures of the operation of the scientific and technological enterprise.

Constant-dollar R&D expenditures increased at an average annual rate of approximately 3.5% between 1975 and 1979, compared to an average annual decline of 1.0% over the previous seven years. Increased private sector R&D investment is largely responsible for this overall increase, according to the report.

The Federal government, on the other hand, can claim most of the credit for