

THE FERMILAB ANNUAL USERS MEETING APRIL 22-23, 1983

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In an atmosphere pregnant with promise, a record 370 users met at Fermilab on April 22 and 23 for the 15th Annual Users Meeting. The gathering took place in the midst of activities to bring beam through one third of the Energy Saver. In detailed reports, Leon Lederman and his staff showed that the ring was nearing completion and that there could be circulating beam as early as June. The ebullience of the moment was stimulated by an awareness of the astonishing successes in Europe and by the realization that pivotal decisions would have to be made for the United States to regain a leading position in the field.

The two-day program included talks by Leon Lederman, Universities Research Association president Guy Stever, and the Director for Energy Research at the U.S. Department of Energy, Alvin Trivelpiece. Of particular interest to users were presentations by Fermilab personnel on the status of Laboratory facilities for the upcoming fixed-target program. Particularly lively discussion ensued after presentations by Ken Stanfield on the Experimental Areas and by Taiji Yamanouchi about the putative schedule. Users were characteristically concerned with



Afternoon coffee break during the Annual Users Meeting.
(Photograph by Fermilab Photo Unit)



Alvin Trivelpiece, Director of Energy Research for DOE.



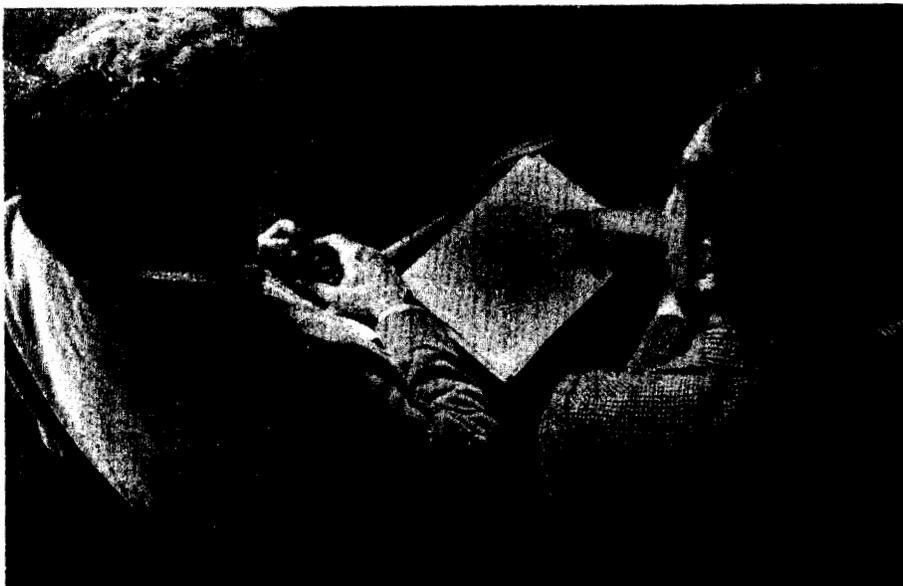
Stan Wojcicki, Chairman of The Woods Hole Subpanel.

seeming delays in schedules that prevented their resumption of an active experimental program at the earliest possible moment.

The situation with TeV I, the proton-antiproton collider program at Fermilab, was aired in talks by John Peoples who described the design and projected construction schedules for the antiproton source, by Alvin Tollestrup who presented a status report on the CDF flagship detector for TeV I and by Dave Johnson who outlined the possibilities for the other interaction region in DO. The inevitable comparisons with the CERN program had to be made. Reasons for optimism emerged based on higher energy (2 TeV vs 0.54 TeV) and higher anticipated luminosity, permitting the exploration with higher statistics of "known" phenomena such as Z^0 's, and W's, and perhaps opening thresholds to new and unexpected physics.

Al Brenner reported on the Computing Facility and described the present saturated state of the Cyber system. He outlined the schedule for the acquisition of an upgraded system which calls for at least a factor of two more computing power to be installed by Christmas 1983. This new system will take care of the computer needs for only the next two to three years. Brenner emphasized that a new architecture is really needed to accommodate the long-term computing requirements at Fermilab.

A highlight of the meeting was a Friday afternoon session devoted to a discussion of Fermilab options presented to the HEPAP subcommittee on New Facilities (Woods Hole Panel). In a brilliant introductory statement Stanley Wojcicki, the



Jerome Rosen (left) of Northwestern University and Al Abashian of Virginia Polytechnic Institute and State University converse at the Annual Users Meeting.

(Photograph by Fermilab Photo Unit)

chairman of the panel, outlined the charge to the panel, the method by which it hoped to arrive at its recommendations, and the good news and bad news confronting U.S. particle physics. J. D. Bjorken gave a short summary of the Fermilab proposal for a 2 TeV \times 2 TeV Dedicated Collider (DC) and Maury Tigner summarized the results of a Cornell workshop on a 20 TeV \times 20 TeV pp collider, the so-called "Desertron." [Editors' Note: See separate articles on these in this issue.] A lively "Town Meeting" discussion followed involving the users, the speakers, panel members, and Laboratory personnel debating the pros and cons of the various options. A feeling of optimism for the future could be sensed in the animated discussions which continued throughout the dinner hour at the Users Center.

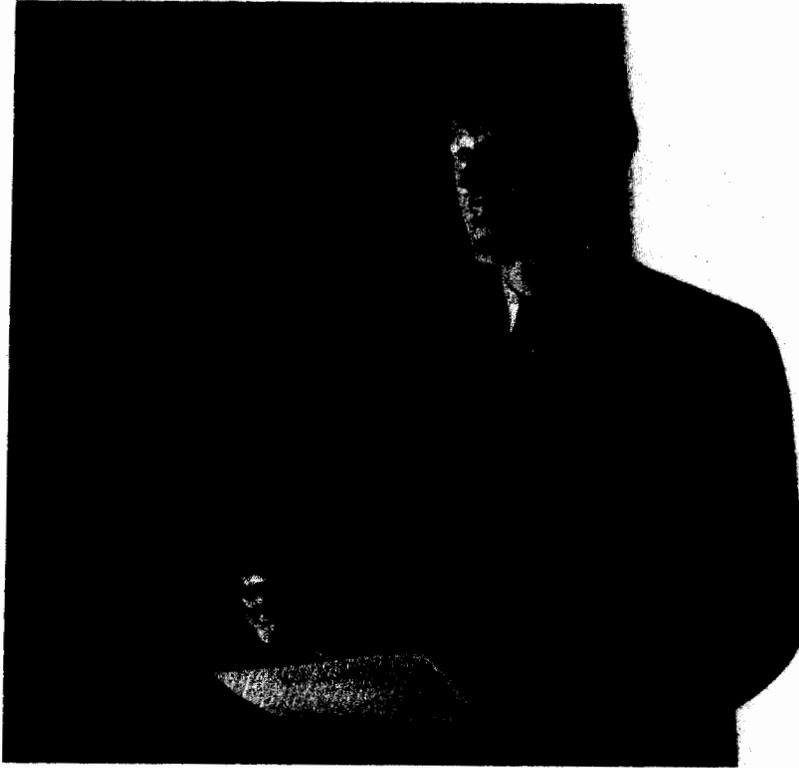
In his talk on Saturday regarding DOE's FY84 Science Budget, Alvin Trivelpiece said nothing to dispel that optimism by pointing out that the climate for basic research in Washington is good, both major parties would identify themselves as friends of basic research, and the administration is open to suggestions for major new initiatives in science.



Martin Perl of SLAC, co-recipient of the prestigious Wolf Foundation prize in physics with Leon Lederman earlier this year, discusses the history and possibilities for future lepton searches and urged Fermilab users attending the Annual Meeting to "enlarge your ways of thinking about heavy leptons."

(Photograph by Fermilab Photo Unit)

Some of the new physics that may be studied with the new machines was summarized by Martin Perl of SLAC who gave a talk entitled "The Status of Lepton Searches," a specialty of his for which he received the 1982 Wolf Prize for physics, an honor he shared with Fermilab Director Leon Lederman. The conference ended with an interesting discourse on computing and its ramifications by 1982 Nobel Laureate Ken Wilson of Cornell University. He argued persuasively that we must look to the revolution in microprocessors to provide the basis of an industrial recovery. Moreover, he presented a scenario whereby the funding of the "Desertron" could be effectively obtained from computer and electronics companies without having to look to the federal government. On this euphoric note the attendees dispersed to continue their preparations for the imminent Tevatron era.



Maris Abolins of Michigan State University and Chairman of
the Users Executive Committee at the Users Meeting last month.
(Photograph by Fermilab Photo Unit)

