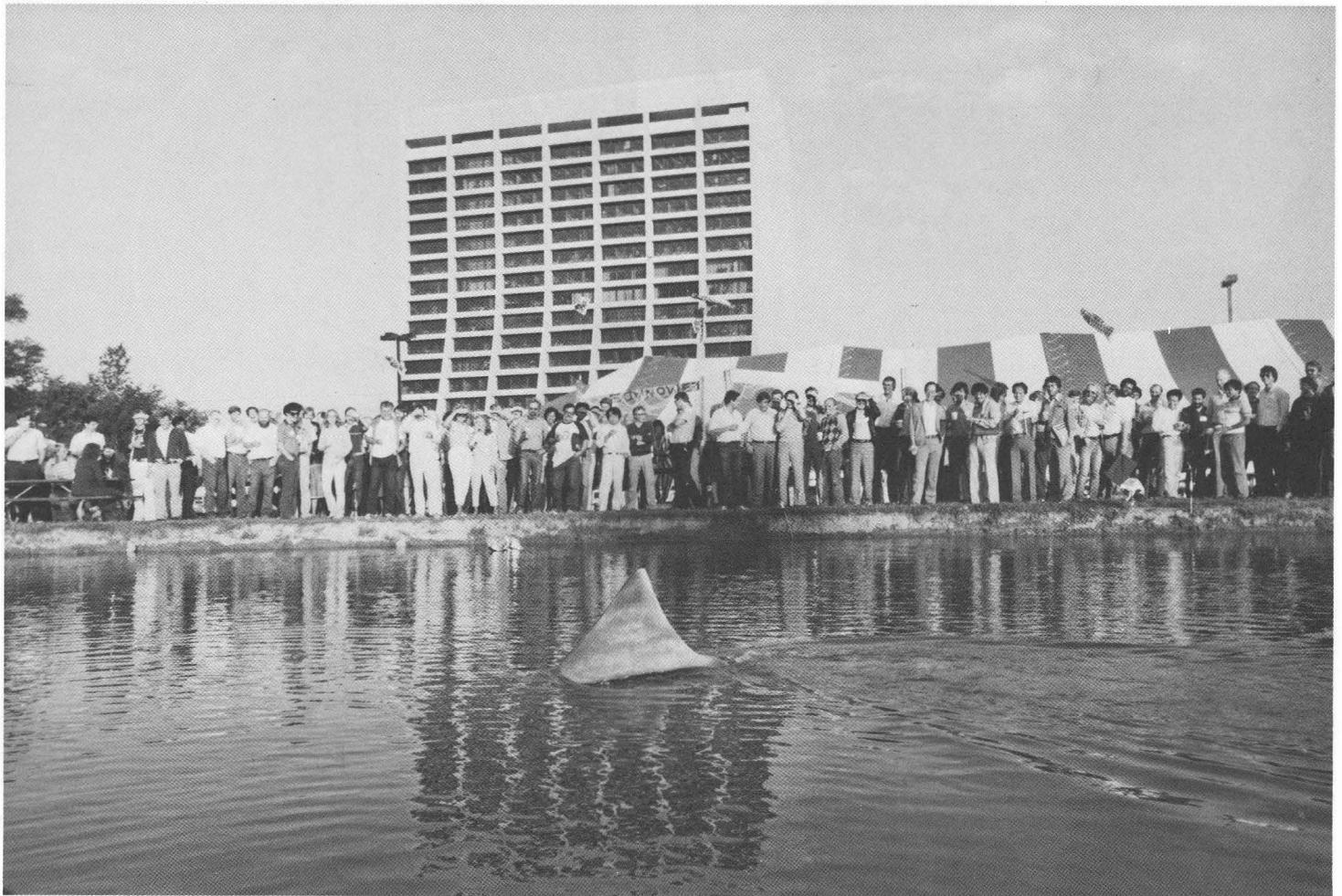


September 6, 1984

FERMI NATIONAL ACCELERATOR LABORATORY

# FermiNews

## 225 ATTEND ACCELERATOR SUMMER SCHOOL



*The 4th Annual Accelerator Summer School participants at the Jaws III dinner gasp in horror as their dinner emerges from the west lot lake. The remote-controlled shark fin was designed and built by Tony Frelø.*

**by Frank Turkot**

Fermilab once again hosted the U.S. Summer School on High Energy Particle Accelerators during the two-week period from August 13-24. It was the fourth in an annual series of schools on accelerator science that was initiated at Fermilab in 1981. Dr. Mel Month of Brookhaven National Laboratory and Dr. Frank Turkot of Fermilab organized this year's School. Stimulated in part by the recent discussions of the Superconducting Super Collider (SSC), school attendance numbered about 225, a 50% increase over the 1981 school.

The central theme of this year's school was the conceptual design of large accelerators utilizing colliding beams to

achieve particle collision energies 1000 times larger than that available with current fixed-target experiments using the Tevatron beam. Nearly two-thirds of the lectures were devoted to collider accelerators and related topics.

In a special symposium entitled "Accelerators for the 1990's" on Monday, August 20, three proposals to achieve these ultra-high energies were presented. Dr. Boyce McDaniel from Cornell University reviewed the SSC, the U.S. proposal for a 20-mile diameter circular accelerator colliding protons on protons, and Dr. Roy Billinge from CERN presented a design study of a similar machine (Large Hadron Collider, LHC) to be placed in the 6-mile  
*(cont'd. on next page)*

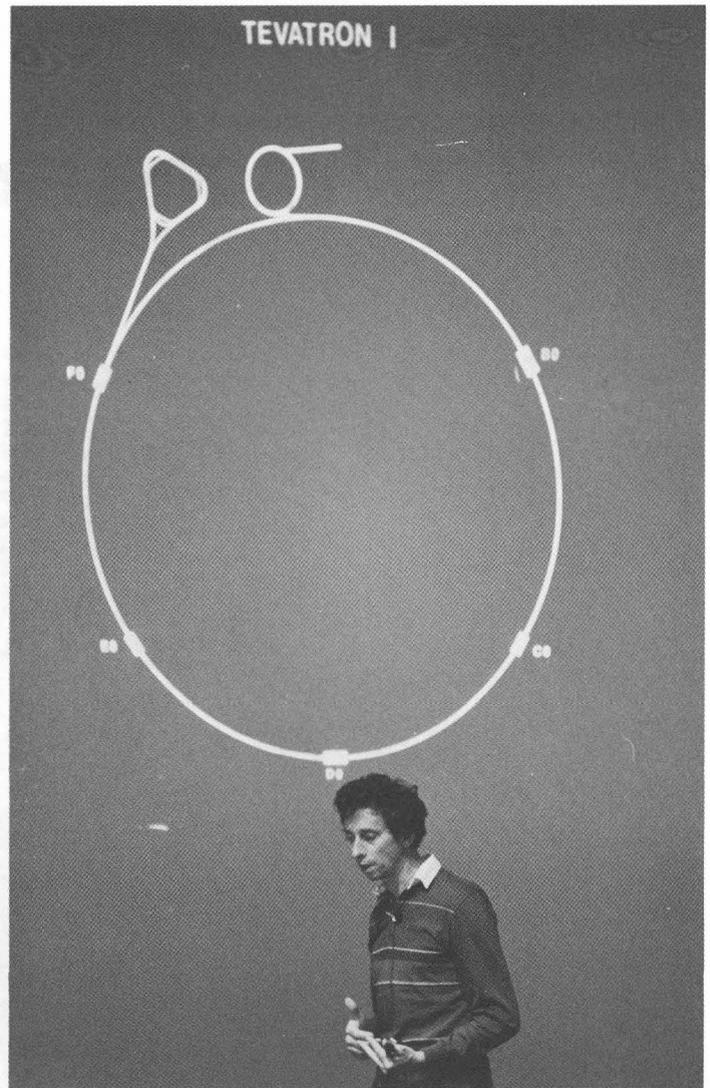


*Dick Lundy, Fermilab, illustrates the scale of the LEP collider during his lecture.*

*(cont'd. from pg. 1)*

diameter LEP tunnel now under construction at CERN. Dr. Burt Richter from SLAC outlined an alternative proposal to achieve the same result with electron-positron collisions using a 30-mile long linear accelerator. A study completed in June estimated the construction cost of an SSC to be nearly three billion dollars.

The 1990's Symposium was followed by an evening round table discussion addressing the subject, "The World-Wide Growth of High Energy Physics--Competition or Collaboration?" The above speakers were joined by Dr. Martinus Veltman, University of Michigan, Dr. Stan Wojcicki, Stanford University, and Dr. Leon Lederman. In the lively exchange that ensued, it was argued that (a) the costs of the new machines rule out the duplication of accelerator facilities that has occurred in the past; (b) the construction of the SSC and LHC would be a

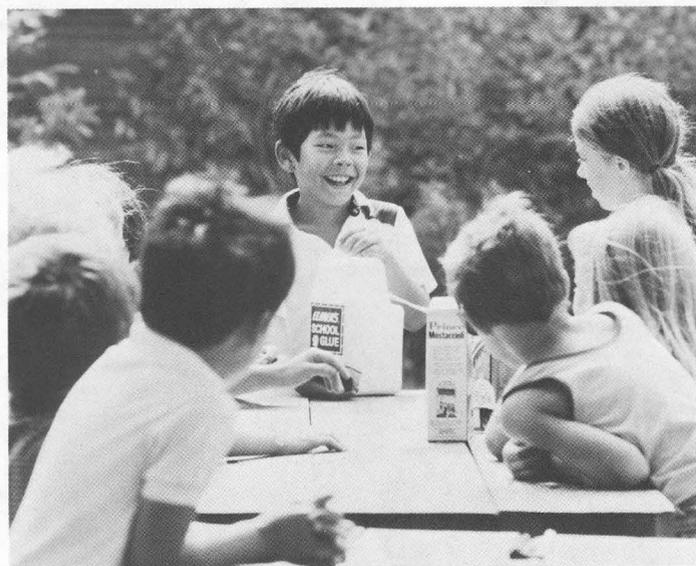


*John Peoples, Fermilab, reviews the status of the Tevatron I project.*

duplication of facilities; (c) the interested governments are encouraging an international collaboration as a means to reduce the financial burden to any individual country; (d) at present there is no mechanism to build a world-wide consensus; (e) there do exist many examples of international collaboration on R&D for accelerator components and detectors. The caricature on the traditional school T-shirt was intended to illustrate the topic of the round table.

A second symposium on "Accelerators of the 1980's" held on Thursday, August 23, reviewed the status and time schedules for the five new high-energy accelerators under construction in the western world. All five are colliders; they include TeV I at Fermilab (completion in 1986), SLC at SLAC (1986), TRISTAN at KEK Laboratory in Japan (1986), LEP at CERN (1988), and HERA at  
*(cont'd. on next page)*

# FIRST FERMI DAY CAMP ENROLLS 32 CHERUBS



*Clockwise from center: Motoi Inaba, Susan Smith, Susan Braddy, Joshua Shaevitz, Emory Chan, Andrew Zee, and Libby Stanley.*

**by Louise Beck**

"Uncle Sam, Uncle Sam, may we cross your river dam"

Not exactly the kind of thing you expect to hear recited on the Fermilab site, but then this is not a quotation from a seminar, but rather a sound typical of the kind of activity taking place on weekdays this summer at the Fermilab Village Day Camp. For the past two months the many young visitors living in the Village have been busy, painting, sticking, playing games, and in general having a wonderful time.

For the first time in Fermilab's history, it was decided to have a day camp to occupy the mornings of the children of visiting scientists. The first morning we enrolled 12 children and that number has been the nucleus for the camp. We have, however, added 20 more children during the two months that the camp has been going. We have even had to  
*(cont'd. on next page)*

*Left to right: Libby Stanley, Luisa Anjos, Heather Smith, Andrew Zee, and Clara Chan*



*Susan Smith*

*(cont'd. from previous page)*

DESY in Germany (1990). Recent experimental discoveries and advances in particle theory lead to great expectations from these new facilities.

All told, there were 63 lectures delivered at the school by 51 lecturers, who represented a broad cross section of leading researchers from high-energy laboratories and universities around the world. Twelve Fermilab staff were among this group. Many of the students commented on the uniformly high quality of the lectures and the informative site tour which included the accelerator, magnet production facilities, and the B0 detector complex.

In addition to the academic excellence, the school had unusually pleasant weather for mid-August. Without a doubt, the most enjoyable activity of the school was the dinner "happening" at the end of each long day of lectures. Dinners were held at six different locations around the Laboratory, featuring a wide variety of visual and gastronomic delights. Highlights included the Hawaiian luau at Lake Law, the buffalo roast in the Village, and the Jaws III dinner at west lot lake complete with shark steaks.

Judging from the warm praise and appreciation expressed by the participants, the Fourth Accelerator School was a total success. The School secretariat composed of Michelle Gleason, Teri Martin, Marilyn Paul (Administrator), Susan Winchester, and the hundred or so other Fermilab staff who collectively brought this about are to be congratulated on their good work.



*(Top photo) School organizers (left) Frank Turkot and Mel Month.*

*(Middle photo) Attendees (left) Tim Castellano, Fermilab, and Roger Bailey, CERN, discuss the heavy lecture loads at the buffalo roast.*

*(Bottom photo) School secretariat (left to right) Michelle Gleason, Marilyn Paul, Teri Martin, Raeburn Wheeler, Anne Burwell, and Susan Winchester.*



(cont'd. from previous page)



restrict numbers by insisting on the requirement that the children be visitors.

There have been children of many tongues, but somehow we have managed to keep them busy and happy with sign language and a dictionary! Every week there has been an outing to some place of interest or fun. We have visited Cantigny, Blackberry Farm, Durant House, Mercy Hospital, and Fox Valley Shopping Center when the LEGO exhibition was on.

The success of a day camp like this depends on the ability and enthusiasm of the camp leader. We were lucky in our appointment of Jane Read, whose performance proved to be more than equal to the task. She was full of ideas and understood the various needs of the children. She revealed herself to be not only warm and charming, but just sufficiently firm to avoid chaos!

I am sure that when the children who participated in the camp return to their homes they will remember the fun they had

at Fermilab and the friends that they made. I am also sure the parents will remember the "peaceful" mornings knowing that their children were enjoying themselves at summer camp.

## **CRAFT SHOW FORMS DUE OCT. 5**

The 1984 Employees Arts and Crafts Show will open Tuesday, October, 16, and last through Wednesday, October 31. Last year's show was so successful that this year the length of time of the show has been extended to two weeks. All employees, visiting scientists, Fermilab contractors, and their immediate families are encouraged to enter the exhibit.

The number of crafters at Fermilab is surprising, and in order to display as many participants as possible, there is a limit of five pieces per entrant. Applications to enter the show are available from Marilyn Smith at the Information Desk in the atrium of Wilson Hall. Applications must be turned in to her by 5 p.m., Friday, October 5. For further information, call Sandra Cox, ext. 3211.

# CHOREOGRAPHERS' SHOWCASE PREMIERS SEPTEMBER 29

by Jane Green

Dance in its varied forms--modern, jazz, classical, and ethnic--is thriving in Chicago, and six of the city's brightest groups will appear in this year's Choreographers' Showcase. Produced annually by the Ballet Guild of Chicago, the Choreographers' Showcase will be held on Saturday, September 29, at 8 p.m. in Ramsey Auditorium.

Modern dancer Amy Osgood has been hailed for her "genuinely inventive" choreography. With her company, Osgood Dances, Inc., she will perform "Red Black and White," a trio inspired by cut-outs of Matisse. The score was written by Osgood's husband, Richard Woodbury, and together they create one of the "most... rewarding and exciting collaborations in the city."

The "lively, buoyant" Lynda Martha Dance Company performs jazz dance in the modern style. The troupe will perform "Chrome," and "exuberant" piece with "stunning precision." In addition, they will dance "Doolin," an entertaining Old West duel performed "with style and a fresh sense of humor."

Kate Kuper, the dynamo who delighted our audience last year, returns with her acclaimed work, "Think ... Feel...See." This piece

contrasts the inner self with the outer person, and critics have called it "humorous and touching." Kuper has been praised as a "singular talent."

Classical dance of South India will be performed by Lara Jayasanker. This skillful dancer began studying her art as a child and first appeared on Indian television at the age of six. Jayasanker's appearances in Chicago have included a performance at the Field Museum of Natural History.

The Chicago Moving Company is one of the city's veteran modern dance troupes. Led by Nana Shineflug and primarily performing her choreography, the company's dancing is based on expansive movement. The troupe will perform "Windows," a work inspired by the art of Edward Hopper.

There will also be a classical ballet selection on the program.

Admission to this popular evening of Chicago dance is \$6, and tickets are now available at the Information Desk in the atrium of Wilson Hall, ext. 3353. Phone reservations are held for five day awaiting payment. Due to ticket demand, those reservations not paid for within five working days will be released for sale.



*Lynda Martha Dance Co.*

FOR SALE

LAND: ONE-ACRE WOODED LAKE LOTS IN WISCONSIN. On seven connecting clear water lakes, with utilities and blacktop roads; excellent private camp sites and planned developments; 40 mi. west of Green Bay, 10 mi. north of Shawano. Will sell on contract. Call Art Streccius, ext. 4791 or 896-8298.

HOUSES: THREE-BEDROOM RANCH IN NORTH AURORA. Near Fox Valley Country Club 4 mi. west of Fermilab. Cathedral ceiling, floor-to-ceiling stone fireplace, carpeted, new roof w/sky dome, lots of closet space, redecorated bath, attached garage, landscaped yard w/patio, garden, many trees, and low taxes. By owner, \$69,950. Call David Olof, ext. 3640 or 896-0461.

TWO-BEDROOM MOBILE HOME. A/C, stove, refrig., washer, dryer, and new storage shed; located in small mobile home community on Fox River in Batavia 10 minutes from Fermilab, \$11,900 (no sales tax). Call Owen, ext. 3535 or 879-9268.

AUTOS: 1982 CHEVY S-10 PICKUP. Fiberglass cap, P/S, P/B, AM radio, 37,500 mi., 22 mpg, \$5,500. Call Jim Seeman, ext. 3370 or 3371.

1979 4-DR. PLYMOUTH HORIZON HATCHBACK. Automatic trans., A/C, AM/FM radio, new exhaust, new brakes, Rusty Jones, \$2,400. Call H. L. Hart, ext. 3717.

1979 WHITE VW RABBIT. Radio, fuel injection, economical, reliable, very good condition, \$2,700. Call Vince, ext. 3602 or 4104.

1940 2-DR. PLYMOUTH COUPE. Restorable antique, double parts, very good body metal, must be towed, \$950. Call Gerry, ext. 3930 or 365-2961.

1967 4-DR. VOLVO SEDAN. Rusted but runs. Good local beater, \$300 or offer. Call Per Grafstrom, ext. 4104.

1972 4-DR. 8-CYL. FORD TORINO. P/S, AM/FM, A/C, new battery, winter tires, \$400 or best offer. Call Nikolic, ext. 4007 or 840-4899 evenings.

MISC: WEILBILT 36-IN. AVOCADO GAS STOVE WITH BROILER. Storage space, counter light, in good condition, \$200. Call Dan Black, ext. 4419 or 931-4741.

continued on reverse

FOR SALE:  
(cont.)

SEARS EXERCISE BIKE. Good condition, \$50 or offer. Call Joel, ext. 3428.

For the following items call Jim Jablonski, ext. 3103. Winchester "Bicentennial Commemorative Model 94, Ser. No. 4xxx, cal. 30-30, unfired in original boxes, \$950; Winchester "Antlered Game" Commemorative Model 94, Ser. No. 6xxx, unfired in original boxes, cal. 30-30, \$450. FOID required.

For the following items call J. Miller, ext. 4155. Storm door, 80 in. x 36 in. good condition, make offer; Westinghouse 7000 BTU 110V, 24 in. x 14 in., good cond., \$55; Goodyear polyglass tire, never used, \$25.

For the following items call Bryan, ext. 3555. Weind tunnel ram, (2) 660 cfm Holly carburetor linkage with 2 velocity stacks to fit small block Chevy, \$450.

For the following items call Nora, 858-9443; prices negotiable. Small wood desk and chair, \$125; beige upholstered chair, \$30; school desk with attached seat, \$15; birch frame loveseat (needs cushion), \$15; strong folding cot, \$10; Oster vegetable juicer (new), \$49; snare drum, \$10; Tasco refractor 300x telescope, \$59.

For the following items call Stan Stoy, ext. 3340, or 985-7204 after 6 p.m. Maple student desk and chair, excellent condition, \$80; 2 sleeping bags with pads, \$16 ea.; 2 aluminum frame camping cots, \$7 ea.; canvas pup tent, \$12; nylon cabin tent, \$20; propane camping lantern, \$12.

WANTED:

USED CLARINET. Suitable for a high school band member. Call JoAnne Mansell, ext. 3865.