

August 4, 1983

FERMI NATIONAL ACCELERATOR LABORATORY

FermiNews

ACCELERATOR CONFERENCE HERE NEXT WEEK



← T-shirted elves wearing red who will be working at the High-Energy Accelerator Conference are (left to right) Sue Grommes, Jean Poore, Marilyn Paul, Michelle Gleason, Cynthia Sazama, Anne Burwell, Raeburn Wheeler, Eva Williams, Joan Bjorken, Lisa Lopez, Carolyn Merkle, and Sue Winchester. Other workers not pictured are Bob Armstrong, John Barry, Rudy Dorner, John Paulk, Marion Richardson, Peggie Roberts, Bud Stanley, Wally Szczesniak, and Tim Toohig.

T-shirted trolls → planning the Conference program are (left to right) Rolland Johnson, Fred Mills, Rene Donaldson, Russ Huson, Ernie Malamud, Chuck Ankenbrandt, Tom Collins, and Don Edwards. Not pictured are Bj, Phil Livdahl, and Lee Teng. Conference T-shirts are for sale in the Publications Office now for \$5, or they may be purchased in 1 West at the time of the Conference. Children's sizes are also available.



Fermilab will host the 12th International Conference on High-Energy Accelerators August 11-16, 1983. Russ Huson is the Conference Chairman and Organizer, and he has been assisted by a Fermilab Organizing Committee and a national Program Committee (see **FermiNews** November 11, 1982). This conference was started at CERN in Geneva, Switzerland, in 1956, and since that time has been held at various high-energy accelerator laboratories in the world. It was last held in the United States at the Stanford Linear Accelerator Center in 1974.

Historically, at the 1956 conference five machines were running at or above one BeV; alternating-gradient focusing was accepted as accomplished. At the 1959 conference one constant-gradient proton synchrotron could touch 10 BeV and three alternating-gradient proton synchrotrons were nearing
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completion. At this conference participants will hear plans for accelerators that exceed 20 TeV on Monday afternoon, August 15.

In addition to the six days of scientific lectures scheduled for the 500 participants from 20 countries, including Armenia, Brazil, China, India, Pakistan, Taiwan, and Saudi Arabia, plans have been underway since April of 1982 to provide an interesting and varied social program.

Thursday evening, August 11, the Not Ready for Beam Time Players will present a command performance of Gilbert and Sullivan's "Trial By Jury," at 9:30 p.m. in Ramsey Auditorium. The musical, directed by Dick Gustafson and music by Stephen Pordes, is free and open to the public.

A California wine tasting and buffet is scheduled in the atrium before the Jazz Showcase and light parabola (see article by Sandra Cox in this issue of **Ferminews**) on Friday, August 12. Jazz Showcase seats are sold out to the public, but tickets have been reserved for conference participants who must identify themselves to Marilyn Smith, the atrium receptionist. Participants are asked to purchase their tickets for \$5 each before 9 a.m. Friday, August 12. Any remaining tickets after that time will be offered to a long waiting list.

Activities for Sunday include tours of Industrial Buildings 1 and 2 to view conventional magnet production and superconducting magnet testing; the Fermilab Collider Detector Facility's B0 Collision Hall and Industrial Building 4 where calorimeter modules are assembled; the Fermilab linac, neutron therapy, and main control area; and the Fermilab prairie. Following the tours, the conference participants will be bused to the Village for a traditional Fermilab buffalo roast and picnic, organized by John Barry, Barbara Burwell, and John Paulk, with a lot of help from Rudy Dorner's, Bob Kraft's, and Bud Stanley's groups.

The social activities culminate on Monday, August 15, at a banquet at the Art Institute and a private viewing of the "Vatican Collections: The Papacy and Art," capably organized by Joanie Bjorken who is also responsible for the conference companion or guest program.

The day before the conference begins, two tents will be erected in the west parking lot to be used for conference lunches. The Fermilab cafeteria is unable to seat 500 additional people at noon hour, and Cynthia Sazama has met with innumerable caterers hoping to provide high quality meals within the conference budget. A special express breakfast line will be open in the cafeteria at 7:30 a.m. on Thursday, August 11, through Tuesday, August 16. Employee meals will be served at regularly scheduled times. To help ease the parking problem, Security will provide additional areas for use during the Conference.

Registration for the conference will take place at Pheasant Run Resort in St. Charles, the official conference hotel, on Wednesday, August 10, from 2 p.m. until 9 p.m. and then will be moved to the Conference Headquarters in 1 West on Thursday, August 11. Marilyn Paul is managing registration and assisting her will be Michelle Gleason, Lisa Lopez, Carolyn Merkler, Jean Poore, Marion Richardson, Eva Williams, and Sue Winchester.

Anne Burwell and Raeburn Wheeler have been keeping track of the participants and their companions on Fermilab's computer, and they will be able to update the registration list from a terminal at Pheasant Run during registration. They will also run daily computerized lists of the participants.

Participants will be bused to Fermilab and back for the meetings and social activities. Coordinating the buses will be Bob Armstrong and Wally Szczesniak.

Many people have been and will be involved in helping to make this conference a success, and to those people and the Fermilab employees who will be inconvenienced for four days, "thank you for helping to make our visitors welcome and August in Illinois appealing!"

SIGN UP FOR MONDAY BOWLING

The Monday Night Bowling League at the Warrenville Bowl is just around the corner. Sign up in the cafeteria on August 8, 9, and 10 from noon to 1 p.m. For more information call Marti Bennett, ext. 3201.

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UNIQUE LIGHT ART COMING

by Sandra Cox

A giant light parabola in the evening sky is an event that will happen at Fermilab from 8:30 p.m. to 11:30 p.m. on Friday, August 12. Chuck Derer, an artist in residence at the College of DuPage, will set up a dozen search lights, each light in a line one mile long along Eola Road and fixed at a different angle. A curve a mile high will be created where certain beams of light intersect.

Chuck Derer is teaching a summer course at C.O.D. called "Constructivist Art," art in which one builds rather than strips away as in conventional sculpture. Derer's students will assist in the set up of the light parabola.

The artist was worried about the effect of bad weather on the show of lights, but he has since concluded that a roaring thunderstorm would make the production even more dramatic. Derer's original concept for the parabola at Fermilab was to place the lights in the Main Ring. Due to concern for the conservationist efforts there, the project was moved to Eola Road. The potential aerial view of the parabola in relation to the Main Ring was the reason the artist selected Fermilab.

The light sculpture should be visible for miles on the night of August 12. The artist has invited photographers to capture this event on film. Those photographs will be the only lasting evidence of this happening. The show is free and open to the public.

GILBERT & SULLIVAN'S

TRIAL *by* JURY

FERMILAB AUDITORIUM

Directed by: Dick Gustafson
9:30 p.m.

Musical Director: Tokio Ohska
Music: Stephen Pordes

ON THURS., AUG 11



The "Not Ready for Beam Time Players" will present a command performance of "Trial By Jury" on Thursday, August 11, at 9:30 p.m. in Ramsey Auditorium. Director is Dick Gustafson, musical director is Tokio Ohska, piano accompanist is Stephen Pordes, costume design is by Joy Hathaway, makeup by Nora, and lighting by Julie Theriot and Ralph Pasquinelli. Dick Gustafson, Kevin Ford, Yorem Ofek, Henry Glass, Jose Poces, Debra Karatas, Herman White, and Ian Stockdale are responsible for set design and construction.

INSTITUTE FULFILLS PHYSICS TEACHER'S EXPECTATIONS

by Saulius V. Ploplys, Arlington High School

The first day of the Summer Institute was begun with great expectations and a deep feeling of excitement (for the employees of Fermilab, try to remember your feelings on your first day...the lucky ones don't have to remember, those feelings persist). This was an opportunity to learn at the most powerful accelerator in the world, from the finest minds in high-energy physics. As the day progressed, it became obvious that a great deal of work was to be done in the coming four weeks. The variety of speakers and topics to be covered was, at the same time, impressive, awesome, and bewildering. From the neophyte's point of view, it was sometimes difficult to see how some topics were related to a grand scheme. We were, after all, here to study the topics peculiar to high-energy physics at Fermilab, not physics in general.

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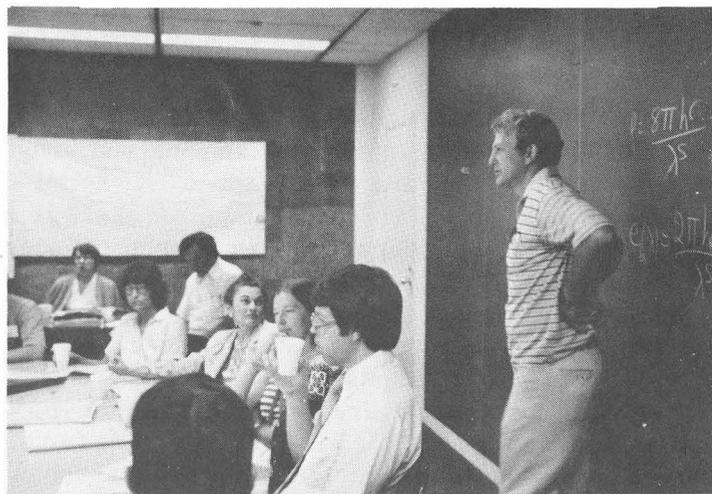
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Dr. Harald Jensen, professor emeritus of Lake Forest College, watches Rick McKelvey of Crystal Lake High School and Natalie Tiernan of Warren Township High School as they perform a rate reaction on a top-loading balance.

In the following days, however, understanding began to grow and with it the realization that the various topics discussed were completely interdependent and essential to comprehending the inner workings of the accelerator. It became evident that each day's program was painstakingly selected to provide a continuous growth in understanding. No longer neophytes, we could see that many hours were spent in deciding which topics and labs were to be included. (This may be a prime example of the wisdom of letting instructors, not students, determine curriculum.) Near the end of the four-week Institute, these topics began to coalesce and, finally, provided us with an overall picture that couldn't be achieved under other circumstances. For me, personally, the culmination came at the lecture given by Drasko Jovanovic. His topics was "Particle Accelerators," and as his talk progressed, I could see all of the various aspects, explained by the previous presenters, fall into place.

As physics teachers, we were also well aware of the enormous time investment made by each of the lecturers, both in the preparation and the delivery of each of the three-hour sessions. Speaking for the entire group of physics participants, I would like to thank them for their time: Dave Bushnell, Joel Butler, Peter Garbincius, Chris Hill, Drasko Jovanovic, Leon

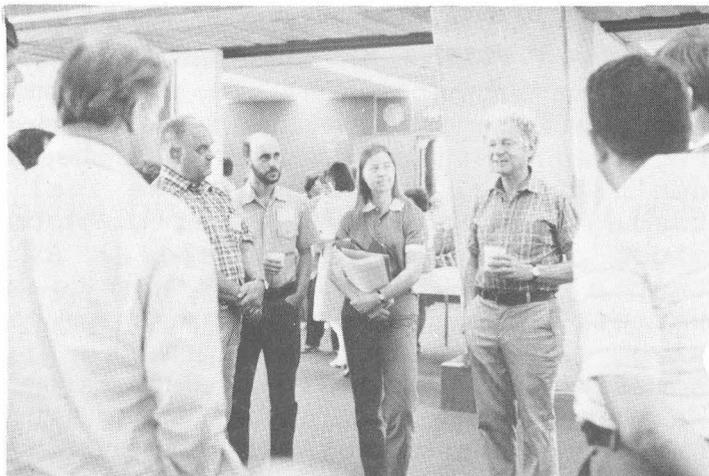


David L. Bushnell, Physics Professor at Northern Illinois University, teaches physics teachers at Fermilab.

Lederman, Leo Michelotti, Steve Pordes, and Rajendran Raja. Similarly, our thanks go out to all of those who contributed their time to the plenary sessions, to the Friends of Fermilab for sponsoring the Institute, to Marjorie Bardeen for coordinating the program, and to Lisa Nichol for endless copying always done with a smile, and to Stanka Jovanovic for her support.

We were also very fortunate to be involved at Fermilab during the time that the historic 512 GeV was achieved, and I wish to express appreciation for being included in the celebration...the combined I.Q. of those in attendance, i.e., the denizens of Fermilab, is staggering to consider and probably unequalled anywhere, similarly, their courtesy and friendliness.

The last day ended with great expectations more-than-fulfilled, new friends, new enthusiasm, and some sense of loss when it came time to leave.



CLASSIFIED ADS TO BE DISTRIBUTED WITH FERMINES AUGUST 4, 1983

FOR RENT:

LAND: ONE-ACRE WOODED CAMPSITES. Drive-on private lot has shoreline access to 7 lakes, 40 mi. west of Green Bay, Wisc., rental by day or week. Call Art Streccius, ext. 4791 or 896-8298.

HOUSES: TWO-BEDROOM CONDOMINIUM IN WINCHESTER CIRCLE IN WARRENVILLE. \$450/month. Call Linda Even, 879-2309 evenings.

TWO-BEDROOM ON CANAL TO GULF BAY. Pine Island, FL, nr. Ft. Myers, rental wkly. or mmthly. Furnished, A/C. Call Art, ext. 4791.

FOR SALE:

LAND: WOODHAVEN LAKES WATERFRONT TRAILER LOT. Call Bill Riches, ext. 3779.

ONE-ACRE WOODED SHORELINE LOTS. Access to seven lakes, 40 mi. west of Green Bay, Wisc., paved roads and utilities. Will the individual who borrowed photos please return them? Call Art Streccius, ext. 4791 or 896-8298.

HOUSE: TWO-BEDROOM MANOR HOME. 1-3/4 bath, 1 car garage, 5S575 F Paxton, Naperville (Rt. 59 one mile south of I-5). \$69,900. Call Rich Klecka, ext. 3868.

CARS: 1982 DATSUN 280ZX. Excellent condition, 13,300 mi., fully loaded. \$14,250. Call Kenneth Horsey, ext. 3741.

1978 PLYMOUTH HORIZON. 4-dr., AM/FM radio, tape deck, snow tires, manual shift, good gas mileage, new muffler, original owner, dependable and reliable \$2,200. Call Joanie, ext. 3440, 3442, or Bj, ext. 3667.

1976 MONTE CARLO. Landau, A/C, AM/FM radio, powr. steering, powr. brakes, good cond., must sell. \$1600. Call Ken Takayama, ext. 4821.

1975 V6 AMC PACER. Auto. trans., powr. steering, powr. brakes, A/C, stereo, 54,000 mi. Asking \$1,390 or best offer. Call Tom Taylor, ext. 3753 or 232-7504 evenings.

1974 CJ5 JEEP. New tires, carb., battery, alt. reg.; 1 yr. old top plus 2nd top. \$2,100 firm. Call Dennis, ext. 4596 or 859-8226.

1973 E200 SUPER VAN. \$975 firm. Call Dennis, ext. 4596.

1972 FORD 4-DR. LTD BROUGHAM. AM/FM, new tires, battery, exhaust. Call LaDaune, ext. 3022.

continued on reverse

FOR SALE:

MISC: BICYCLES. Single-speed., coaster brakes. One 15-in. frame, 20-in wheels, for ages 6-9, wk. needed, \$10; one 16-in. frame, 24-in. wheels, for ages 8-12, good cond., \$25. Call Al, ext. 4829.

RALEIGH SUPER COURSE BIKE. 23-in. frame, Reynolds 531 main frame, 27 in. x 1-1/8 in. specialized touring tires, Cinelli bar/stem, many extras, excel cond. \$200. Call F. Krueger, ext. 4082.

MAN'S 10-SPEED 27-IN. BIKE. \$50. Call Hope Thies, ext. 3244.

MODERN CHROME TABLE AND SIX CHAIRS. \$150. Call Hope, ext. 3244.

EARLY AMERICAN BUNK BED SET WITH ONE MATTRESS. Excel. cond. \$125. Call Sharon Koteles, ext. 3598.

For the following items, call Harry Ferguson 3rd, ext. 4812. Phase Linear 200 power amp 190 w/channel; Phase Linear 2000 pre-amp; 4 Bridgestone 185/70HR-13 tires; 1 pr. Reference car speakers (4-in. woofer, 1-in. dome tweeter) 40W max.; 4 6J x 13 rims from R-X-7; 4 205/60 VR-13 Comp T/A.

For the following items call Bill Riches, ext. 3779. 1982 Ward gas dryer, almond, factory serviced, \$250; year-old VHF-UHF TV antenna, \$35; Reese Class IV load leveling trailer hitch, \$175; red/black floor-length drapes, valances, traverse rods, \$15/window; matching king-size bedspread, \$10.

For the following items call Jim Dowd, ext. 4377 or 584-1930 after 2 p.m. Antique upright piano, \$375; electric organ w/2 keyboards and footpedals, \$125; 2 3-speed men's 26-in. bicycles, \$30/ea.; 1971 Coleman pop-up camper, sleeps 8, needs some work, \$750; Eclipse reel-type mower w/ Briggs & Stratton 4-cycle engine, \$35; misc. used books (no junk) by the box, \$5/box.

SEARS CRAFTSMAN 20-IN. ROTARY LAWNMOWER W/GRASS CATCHER. \$30. Call Gerda, ext. 3640.

28-FT TRAVEL TRAILER. A/C, awning, deck, and utility shed. \$13,900. Call Bill Riches, ext. 3779.

For the following items, call Rich Klecka, ext. 3868. Geysler portable and submersible sump pump, \$49; elec. liquid level control for sump pumps, \$29; Kenmore Power Miser 8 40-gal, 5500 watt, electr. water heater w/8 yr. tank, \$139.

For the following items call Ken Takayama. AM/FM receiver (Miida), cassette deck (AKAI), turntable (Garrard), speakers, \$200; kit. table/4 chairs, \$80; 2 pine twin beds, \$100; pine mirror, \$20; pine lamp stand, \$20; couch, \$20; recliner, \$20; B/W TV, 3 yrs. old, \$15; vacuum cleaner, 3 yrs., \$15.

WANTED: UNICYCLE. Pref. used 24-in. Schwinn. Call Merle Haldeman, ext. 3958.