FermiNews

The Newsletter of the Fermi National Accelerator Laboratory

FERMILAB EXPERIMENTERS ANNOUNCE EVIDENCE FOR THE TOP QUARK

PRESS CONFERENCE DRAWS REPORTERS FROM AROUND THE WORLD INTERESTED IN NEWS ABOUT THE SEARCH FOR TOP

Experimenters from CDF and DZero met with members of the media last Tuesday at a press conference held at the Laboratory. The press conference followed two special colloquia held in Ramsey Auditorium at which spokespersons for CDF and DZero discussed their experiements.

Nearly fifty reporters from the United States, Korea, Japan, Germany and Taiwan gathered in Wilson Hall's 1 West for a press conference held April 26. At the press conference, CDF spokespersons announced evidence for the top quark and DZero spokespersons presented preliminary analyses of their top search experiments.

Martha Krebs, Director of Energy Research for the Department of Energy made the opening remarks. "The achievement announced here today represents the high vitality of our high-energy physics program in the United States. We lead the world at this energy frontier and the capabilities here at Fermilab are crucial to maintaining that leadership."

Dr. Krebs was followed by Director John Peoples, Bill Carithers and Mel Shochet, spokespersons for CDF, and Paul Grannis, spokesperson for DZero, and U.S. Representative Dennis Hastert.

Following the prepared remarks, members of the panel fielded questions from the media that ranged from "What is a quark?" to "What is the significance of this new information?" to "Why a press conference?"

Responding to the last question, Mel Shochet said, "Rumors abound in this field as in all others when potentially exciting results are being discussed. We thought since these reports are going to come, it behooves us all to have the opportunity to explain to you just what it is that we have done, what we have found and where the problems still lie."

Director John Peoples added, "This process of searching for the top quark requires a major investment of public funds. It is important that the public be aware of progress in the field. The press is the most qualified group to interface between us the scientist and the public to know, in fact, that their money is being wisely used." ■

FermiNews

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HOW TO ACCELERATE A PROTON

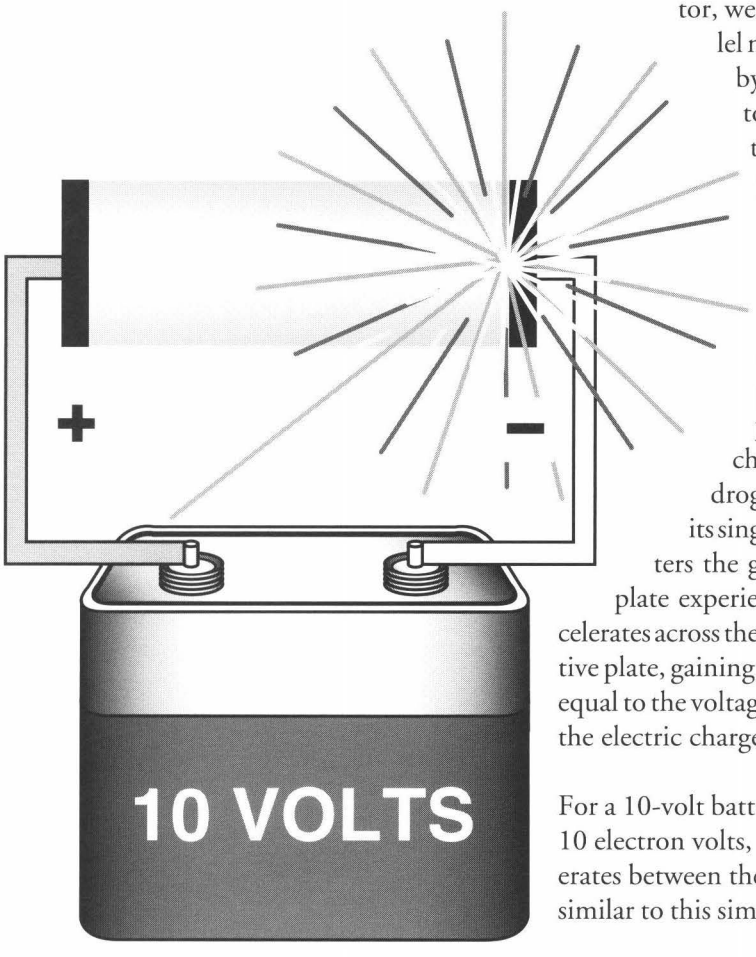
To explore the smallest of the small, the particles inside the atom, experimenters use the largest of scientific instruments, particle accelerators with outer dimensions measured in miles. These giant tools of particle physics can accelerate subatomic particles to nearly the speed of light. In experiments to find and measure the top quark, Fermilab physicists use the world's most powerful accelerator, the Tevatron, to accelerate beams of protons and antiprotons. The protons and antiprotons travel in opposite directions around the Tevatron's four-mile circumference. When proton and antiproton meet, they collide with enough energy to produce the elusive top quark once in every few billion collisions.

How does the Tevatron accelerator work?

OPPOSITES ATTRACT

All particle accelerators start from the principle that electrically charged objects exert a force on each other — opposite charges attract; like charges repel. A particle with a positive or negative charge experiences a force when it is in the presence of an electric field. When a net force acts on an object, the object accelerates. The trick in a proton accelerator is to keep applying the force to accelerate protons in the same direction until they are going at almost the speed of light.

To make the simplest kind of accelerator, we could use two parallel metal plates separated by a gap and connected to each other by a battery. We connect one plate to the positive battery terminal and the other to the negative terminal. The battery creates an electric field in the gap between the two plates. A positively charged proton—a hydrogen atom stripped of its single electron—that enters the gap near the positive plate experiences a force and accelerates across the gap toward the negative plate, gaining an amount of energy equal to the voltage of the battery times the electric charge of the proton.



For a 10-volt battery, the proton gains 10 electron volts, or 10 eV, as it accelerates between the plates. Accelerators similar to this simple device, but using more sophisticated voltage sources than batteries, can give protons up to a few tens of millions of electron volts.

RAISING THE ENERGY

To give the proton still higher energy, we can send it through a series of small acceleration gaps, arranged one after another. A proton moving along its path approaches the first acceleration gap in the path. The gap is like the one between the plates connected to the battery, but with a much higher voltage. Once the proton enters the gap, it feels the force of the electric field and accelerates to the negative side of the gap, gaining energy. As it leaves the gap, we shield it from the field in the gap and keep the proton speeding on its way down the path, with its added energy. We now send the proton through a second gap. It gains a second boost of energy on top of the first.

By sending the proton through many accelerating gaps, and shielding it from the electric field when it is between gaps, we can use a succession of small voltages to boost the proton to a higher and higher energy. Accelerators that work this way are called linear accelerators, or linacs, and they can accelerate protons to a few hundred million electron volts or MeV. The more gaps a linac has, the higher the energy it can give to a proton—and the longer the linac gets. When a linac runs out of real estate, it reaches its energy limit.

But what if we took the proton as it shot out the end of the linac and bent its path around to the beginning, to go through the series of acceleration gaps again, this time at a much higher starting energy? We could send it back

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ACCELERATORS

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to the beginning many times, each time at a higher energy than before. In fact, we can do exactly this. Because the path of a moving charged particle bends in a magnetic field, we can use magnets to bend the proton's path, sending it circling back to the beginning. Each time the proton goes around the circle and through the accelerating gaps it gains more energy. To keep it on the same circular path as it gains energy, we must make the magnetic field slightly stronger each time it goes around. We synchronize the increase in the magnetic field with the proton's increasing energy. To keep our proton and billions of others like it circling together, we focus them into a tight beam. Voila! We have made a circular accelerator of the type called a synchrotron, of which Fermilab's Tevatron is the world's most powerful. Our proton synchrotron can give particles energies of nearly a trillion electron volts, or one TeV.

> To explore the smallest of the small, the particles inside the atom, experimenters use the largest of scientific instruments, particle accelerators with outer dimensions measured in miles.

ADD 10 BILLION ANTIPROTONS

While the protons are speeding around the ring, we feed a batch of antiprotons into the same ring. Antiprotons are particles just like protons, but bearing a negative charge. Their opposite charge makes them accelerate like the protons, through the same gaps but in the opposite direction. Their opposite charge also allows them to be bent in the same circle by the magnets, but traveling the opposite way around.

We have now produced two intense beams of particles orbiting the accelerator ring in opposite directions at close to the speed of light. When we decide to bring the beams together at a point in the accelerator ring, we will cause millions of high-energy collisions yielding hundreds of different kinds of particles, one of them, perhaps, the top quark. ■

When Two Tennis Balls Collide and a Bowling Ball Flies Out!

"Explain what happens in the kind of particle collision that could produce a top quark."

"A proton strikes an antiproton head on. They both smash to bits, and pieces fly off in every direction."

"Got it."

"Some of the bits that fly off are heavier than the proton and antiproton combined. For instance, the top quark is more than 100 times as heavy as a proton."

"Hold it. That doesn't make sense. How can the parts be heavier than the whole?"

"Because of the connection Einstein found between matter and energy. Remember $E=mc^2$? E stands for energy and m stands for mass. The two quantities are tied to each other. Accelerating the proton and the antiproton to almost the speed of light gives them an enormous amount of energy. When they collide, most of that energy can turn into a corresponding amount of mass in the form of the particles that fly out of the collision. It's as if two tennis balls could move so fast that when they collided, a bowling ball flew out."

"That Einstein. What a guy."

ANNUAL USERS MEETING TO BE HELD IN JUNE

The Fermilab Users Executive Committee is holding its Annual Users Meeting Thursday, June 9, 1994 and Friday, June 10, 1994. The meeting will be held on the afternoon of June 9 and all day June 10. Registration is at 12:30 p.m. on June 9 and again at 8:30 a.m. on June 10.

BRUCE BARNET, chairman of the Users Executive Committee, noted that because of the "many physics results recently announced and the extensive planning for future Fermilab options," the meeting will be extended over two days rather than one.

The meeting is intended to allow discussion of many aspects of the Fermilab program. Talks will be given on fixed-target and collider experiments, including both the recent results and possible future evolution, and on accelerator options that could be developed at Fermilab. Discussions on the state of high-energy physics by representatives from the directorate, the government and high-energy physics national organizations will also be presented.

"The field of high-energy physics has changed dramatically over the last 12 months," said Bruce. "Fermilab is the highest energy particle accelerator in the world and will continue to play that role for at least the next decade. Its potential for future physics is vast."

Nominations to the Users Executive Committee are due by the time of the annual meeting. Bruce asks that all users nominate someone or volunteer themselves to provide an effective voice for users locally and on the national level. "The committee can play an important role in the Fermilab physics community," said Bruce.

Nomination forms and registration information is available at the Users Office, WH1E, x3111 or FNALV::USERSOFFICE.

"The field of high-energy physics has changed dramatically over the last 12 months. Fermilab is the highest energy particle accelerator in the world and will continue to play that role for at least the next decade. Its potential for future physics is vast."—Bruce Barnet

The Users Executive Committee minutes, and other messages important to the users community, are now posted electronically on INFO in folder UECNEWS. Users are encouraged to register for UECNEWS so they will automatically be notified of new entries.

Proper Response to Injury Can Make a Difference

THE ES&H SECTION WOULD LIKE TO REMIND ALL EMPLOYEES OF THE PROPER PROCEDURES TO TAKE IN RESPONSE TO MINOR INJURIES THAT OCCUR AT THE LABORATORY.

MINOR INJURIES REQUIRING MEDICAL ATTENTION

During normal working hours, personnel with injuries of a non-emergency nature should report to the Fermilab Medical Office. After hours, personnel should go or be transported to a community hospital.

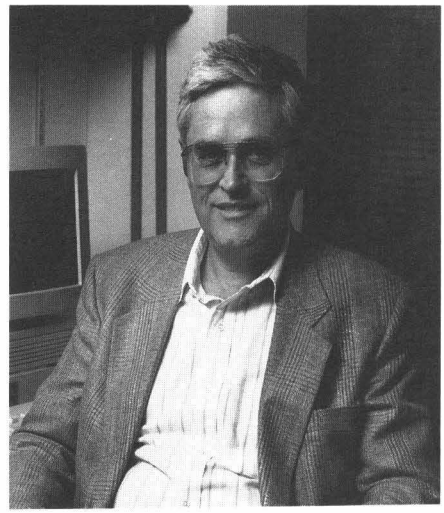
Use of the Fermilab ambulance in all situations requiring medical transportation is preferred.

Do not attempt to bandage a fellow employee's injury. Cleanup of any spills from an injury other than one's own is not to be done except by people specifically trained and designated to perform that function.

MINOR INJURIES NOT REQUIRING PROFESSIONAL MEDICAL ATTENTION

Minor injuries, e.g., small cuts requiring a band-aid, may be treated at the local first aid box only by the injured person.

LARRY COULSON JOINS DIRECTORATE



LARRY COULSON, returning from the SSCL, has been appointed Assistant Director. His appointment became effective April 1, 1994.

Larry will serve as assistant to RAY STEFANSKI, the Associate Director for Operations Support. Larry will work with Ray in overseeing the operations of the Facility Engineering Services Section and the Environment, Safety and Health Section. He will also be assisting in the Quality Assurance and Self-Assessment programs and the General Plant Projects (GPP) and Accelerator Improvement Projects (AIP).

Larry spent 17 years working at the Laboratory before joining the SSCL in 1989. He joined the Lab in 1972 in the Radiation Physics Group and then joined the ES&H Section as its assistant head when the group formed. He served as head of the section from 1983 until 1989.

Larry said he looks forward to getting involved in different aspects of the Laboratory other than exclusively environment, safety and health issues. "The Lab has changed a lot since I left," said Larry. "But it still is exciting. I enjoy being back and meeting new people."

EDUCATION OFFICE ANNOUNCES SUMMER PROGRAMS FOR STUDENTS & TEACHERS

They draw people from all over the world, including students from Australia, Mexico and Germany and teachers from Texas, Vermont and South Carolina. They captivate and they educate. They are the Fermilab Education Office's Summer Education Programs.

This summer, as in years past, the Education Office will be offering the Teacher Research Associates Program, the High School Honors Research Program in Particle Physics and the Topics In Modern Physics Institute. Introduced this year is a new program, the Middle School Visualization Symposium: Visualization, Connecting Computation, Geometry, Technology.

In a series of articles throughout the spring, *Ferminews* will highlight each of the four programs.

THE TEACHER RESEARCH ASSOCIATES PROGRAM

The Teacher Research Associates Program, or TRAC, will be held at Fermilab from June 20 until August 6. The program, currently in its twelfth year at Fermilab, is designed to give high school and junior high school teachers the opportunity to experience scientific research firsthand by participating directly in research being conducted at Fermilab. Teachers work with Fermilab employees from several divisions who provide research experience and mentoring support. The teachers will in turn share these benefits with their students in the classroom and with their colleagues in teacher workshops.

For placement in the program, each teacher's academic background, along with relevant work experience, is reviewed and matched to appropriate research opportunities at Fermilab. TRAC appointments have been assigned to teachers in many fields, including biology, chemistry, computer science, electronics, industrial technology, mathematics and physics.

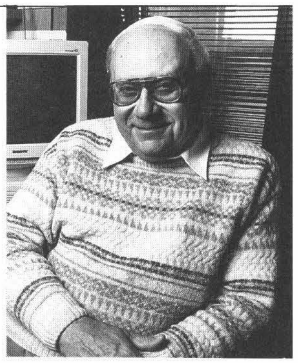
The program's objectives are to:

- enhance the leadership skills of science, mathematics and technology teachers.
- increase science, mathematics and technology teachers' awareness and understanding of current science and technology and to promote the transfer of this knowledge to the classroom.
- offer science, mathematics and technology teachers the opportunity for renewal, revitalization and recognition.

Next issue: *Middle School Visualization Symposium.*

People & Events

NESTANDER RETIRES

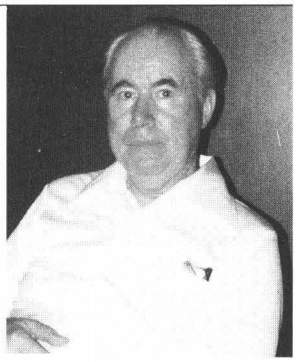


The head of the Facility Engineering Services Section, WAYNE NESTANDER, retired after nearly 25 years of service to the Laboratory. Wayne first came to the Lab in December 1969, working in the Experimental Areas Department. In 1981 he became head of the Tevatron Construction Department, the forerunner to FESS.

Wayne's last day here was April 29. He plans to stay in the area in his home that he designed and built in 1959. "We have lots of ideas for improvement, remodeling and repair," said Wayne. He added that he and his wife plan to travel, with such places as Australia, New Zealand and the Nile River on their itinerary.

"It has been exciting to work over 24 years at Fermilab and 13 years at Argonne on particle accelerators," said Wayne. "I've really been fortunate in having so many varied assignments including component design, alignment, utilities, experimental area operations, civil construction and plant operations and maintenance. The technical work and schedules have always been challenging, but the real plus at these research laboratories has been the great group of people that I met and worked with. I wish you all good luck, good budgets and great research."

MILLER RETIRES



CLARE MILLER, a long-time design/drafter in TS/Engineering, retired from the Lab March 31. Clare began working in Technical Support in August 1980.

Clare said he has nothing definite planned for his retirement, other than the usual housework. "I'll be working around the house and taking vacations. There is a lot of work that I've been putting off for the last couple of years."

Clare said he liked his work at the Lab and will miss it. "I enjoyed working here."

ARTS SERIES PRESENTS

ALISON KRAUSS & UNION STATION

"I can't think of a person more suitable for country music and the Grand Ole Opry than Alison Krauss. She has one of the sweetest, most honest voices that I have heard since the early days of what we call traditional country music."
—*Dolly Parton*

Alison Krauss, a Champaign, Illinois native, burst onto the bluegrass scene at the age of 14 when she recorded her first album. She received her first Grammy nomination at age 18, won her first Grammy at age 19, her second at 21, and was recently inducted into the Grand Ole Opry.

Alison Krauss and Union Station have a loyal audience that reaches not only into the traditional bluegrass realm, but also into the worlds of country and mainstream music. She grew up in a house filled with folk, country, rock and Dixieland jazz. Her band, Union Station includes Barry Bales, bass; Adam Steffey, mandolin; Ron Block, banjo and guitar; and John Bowman, guitar.

Catch Krauss as she makes a rare home state appearance at Ramsey Auditorium on May 7 at 8 p.m. Tickets are $14. For reservations, call xARTS.

SOLD OUT

EXHIBITORS WANTED FOR ARTS & CRAFTS SHOW

Once again there will be an arts and crafts exhibit in the 2nd Floor Art Gallery in Wilson Hall. The show will run from June 2 through June 30. The exhibit committee is soliciting both fine art and craftwork by any employee, visiting scientist, retired employee or contractor and immediate family members. In the past, exhibits have included holograms, paintings, sculpture, ceramics, quilts, jewelry, baskets, masks, batik, photography, weaving, stained glass, furniture, faceted stones, fashion, knitting, dolls and computer graphics.

Applications to enter the show are available at the Wilson Hall Atrium front desk. For further information, call SAUNDRA POCES at x3211.

HEALTH FAIR COMING TO LAB

The Wellness Works Committee will be sponsoring Fermilab's second health fair Wednesday, June 8 in the Wilson Hall Atrium from 10 a.m. to 2 p.m. At the fair, local healthcare providers will present their programs and services through demonstrations, screenings and give-aways. Many of last year's participants will be here again, along with several new organizations. All employees, retirees and their families are invited to attend. Supervisor permission is required of employees.

CALLING ALL SPORTS FANS

It's that time again to dust off the sports equipment. The Fermilab summer league sports teams are now forming. For information on any of these leagues contact Jean Guyer at x2548, FNALV::JEANM or Quickmail, or the league rep listed.

VOLLEYBALL FUN LEAGUE

Games will be played on Mondays and Tuesdays beginning May 16. The captains meeting is May 10 at noon at the volleyball courts. Rep: Maxine at FNALV::MAXINE.

SINGLES TENNIS LEAGUE

Round robin tournament play begins May 9 for players of all levels. Games to be held in the outdoor courts on weekdays. Rep: Luc at x3489, FNALD::LUC.

14" COED SOFTBALL LEAGUE

Play begins May 18. The league meeting is May 11 at noon at the softball field. Games will be held on Mondays and Wednesdays. Contact Jean Guyer.

TWO-PERSON VOLLEYBALL LEAGUE

Persons interested in beginning a two-person volleyball league contact Jean Guyer by May 16.

ON YOUR MARKS, GET SET. . .

Top Ten Reasons You Should Attend The Wellness Works Committee's Walk Around Main Ring for 1994 National Employee Health and Fitness Day May 18, 1994.

10. Guaranteed chance of winning a piece of fruit or frozen yogurt.
9. Extended walking hours: 11:30 a.m. to 1 p.m.
8. Another opportunity to contemplate the unique Fermilab color scheme.
7. Chance for friendly competition between divisions/sections/collaborations.
6. Compare your shade of paleness with other walkers'.
5. Meet others with the same interests as you... fellow walkers, runners, nature enthusiasts, goose watchers, rollerbladers...
4. I can't think of anymore reasons other than the fact that
3. I hope more people show up for this event than the Stop Smoking Support Group!
2. Congrats (and best wishes) to those who did!

And the number one reason: you could win a Fermilab pool or gym pass!
—*Audrey Hopper*

CLASSIFIEDS

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pool, pets OK, 15 min. drive from Lab, $544/month, avail. July 1. Call Anna at x3635 or 708-293-3915.

3 bdr, 1.5 bath, split-level, family rm., 2 car garage, C/A, newer carpet, Oswego schools, Kendall county taxes, 20 min. from Lab. Call Steve at x4975 or 708-892-1981.

4 bdr, 2 bath home in Butterfield subdivision (immed. south of Lab), Naper schools, 2 story sun rm., large family rm., $154,300. Call Matt at x8083 or 708-820-9614.

■ PETS

Birds: Red-masked Conure & Quaker Parrot. Experienced bird handlers only. Hand-tamed & bonded; will not separate. Both 2 yrs. old, $425, inclds cage, toys & hanging playgym. Call Mary at x3632.

MAD DOGS TAKE WINTER BASKETBALL LEAGUE TITLE

Row 1, l to r: Scott Radeztsky, Floyd Sample, Tim Griffin, Brian Lavoy and Lee Scott. Row 2, l to r: Al Sondgeroth, Gordie Gillespie, Rocky Kolb, Fred Lewis and Harry Ferguson.

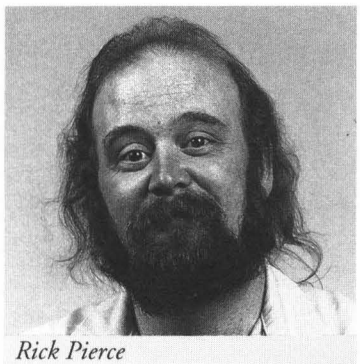
The Mad Dogs of the Winter Basketball League are chained down with the weight of gold—March Madness at Fermilab is over. After 24 regular season games, six holiday tournament games, three play off games, 2,817 points scored, 915 fouls committed, 31 points in a game by a single player (Toni Bush), 208 three-point shots made and 1,320 minutes of basketball, the Mad Dogs of Pearl Jam finished with the best record in the league with 11 wins, one loss, undefeated in the holiday tournament and two overwhelming victories in the playoffs. The Mad Dogs struggled in the early season and lost a game as they tried to find the right chemistry of players on the floor. By midseason, the team was becoming a defensive nightmare led by Scott Radeztsky, Floyd Sample, Fred Lewis, Rocky Kolb and the hustle of Timmy Griffin. The offensive end was orchestrated by two of Rocky's former students, Gordie Gillespie and Brian Lavoy, as they executed the textbook teachings of Rocky. But Al, the "Horse," Sondgeroth, led the way, scoring 222 points during the regular season and collecting MVP and leading scorer honors for both the regular season and the playoffs.

The playoff game was Mad Dogs versus Dream Team, the only team to beat the Mad Dogs during the regular season. The Mad Dogs came out the decisive winner, beating Dream Team 73 to 49. The league standings were: 1st place, Mad Dogs coached by Harry Ferguson with an 11-1 record; 2nd place, Dream Team coached by Stan Boyson at 6-6; 3rd place, Nuthin' But Net led by Keith Hronek with a 5-7 record; and 4th place, Colliders coached by Mike Ralls with a 2-10 record.

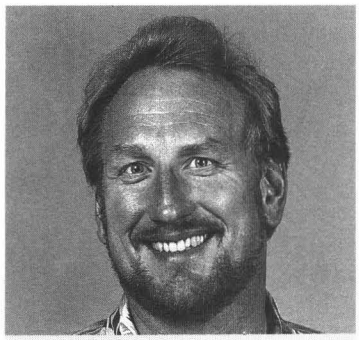
—*Harry Ferguson*

PIERCE & SCHUHOW STAR IN LOCAL PLAY

Two of Fermilab's employees, RICK PIERCE (RD/Instrum.) and TOM SCHUHOW (RD/Oper.), will showcase their acting skills in the Albright Theater's production of *Inherit the Wind*, a play about the Scopes Monkey Trial.



Rick Pierce



Tom Schuhow

Rick, who has starred in three other Albright productions and has directed one, will play Henry Drummond in the play. Tom will play Harry Y. Esterbrook. This is Tom's first play with the Albright Theater.

Performances will be shown May 6, 7, 13, 14, 20 and 21 at 8 p.m. and May 15 at 2 p.m. The Albright Theater is located at 101 N. Batavia Avenue in Batavia.

GET INTO THE SWIM

Fermilab swimming pool memberships are on sale in the Recreation Office, WH15W. Pool membership is open to Fermilab employees, visiting researchers, eligible contract personnel and their immediate families. Applications are available in the Recreation Office or by calling x4512 or x2548. Season rates are: single, $25; couple, $40; family of four, $60. Each additional family member is $5. Children under age 2 do not require a pool tag. Daily and guest fees are $3 per day. Guests must be accompanied by a Fermilab employee. The pool will open Memorial Day weekend, May 28 at 9 a.m.

HOST FAMILY NEEDED

The Center for Cultural Interchange is seeking a family to host a 16-year-old male student from the Ukraine. He will be arriving in August 1994 and would like to stay for the academic year. His strong interests are physics, math and chess. He would be well suited to a physicist's or engineer's family.

If you are interested in being a host, please contact BRENDA KIRK at x3440 or FNALV::BKIRK.

Harper's Index

Estimated number of comic strips in which Lucy has snatched a football from Charlie Brown, mid-kick:

32

Ratio of the number of wild turkeys in the United States to the number of wild-turkey hunters:

2:1

MOVIE SCHEDULE

The Fermilab International Film Society presents movies from all over the world. Movies are shown at 8 p.m. Fridays in Ramsey Auditorium. Admission is $3 for adults, $.50 for children 12 and under.

■ May 13

Forbidden Planet, One of THE classic science fiction films. Lone survivors of an interstellar expedition are found amid the remnants of an extinct civilization. Fred McLeod Wilcox, director, U.S., 1956, 98 minutes.

■ May 27

Veronica Voss, Haunting masterpiece tracing the declining days of an aging, down-and-out actress. A reporter investigates Veronica's past and uncovers shocking secrets. Rainer Werner Fassbinder, director, Germany, 1982, 105 minutes.

Congratulations!

To Georgia Schwender and JAMES SIMONE (RD/Theo. Physics) on the birth of their daughter Michaela Lee Simone. Michaela was born April 6, 1994 at 10:42 p.m. at Delnor Community Hospital in Geneva. She weighed nine pounds, four ounces and was 20 inches long. Michaela is their first child.

• To Joyce and HENRY SCHRAM (RD/Res. Fac. Dept.) on the birth of their son Jonathan Dean Schram. Jonathan was born on April 20, 1994 at 8:05 a.m. at Central DuPage Hospital in Winfield. He weighed eight pounds, eight ounces and was 21 3/4 inches long. Jonathan is welcomed home by his two-year-old brother Nathan.

Associate Director Tom Nash presented 10-year service awards to 36 Fermilab employees at a luncheon held March 11, 1994 at Chez Leon. Pictured are: (Row 1, l to r) Tom Nash, Sharon Austin, Mary Cullen, Rich Thompson, Joanne Hall, Linda Bagby, Debra Wyland, Keith Ellis. (Row 2, l to r) Brian Fellenz, Dave Capista, Steve Fry, David Peterson, Merle Olson, Joseph Schaubel, William Robatzek, Alan Haugen, Scott Hawke, Dallas B. Riddick. (Row 3, l to r) Patrick Sheahan, Mark Fitzpatrick, Monty Emmons, Mike Behnke, Gustavo Corral, Daniel H. Freeman, David Anderson, Tom Zimmerman, Daniel W. Lee. (Not pictured) Florence Allen, Stephen Baginski, Vinod Bharadwaj, James Fagan, William Henchel, Eric Larson, Peter Lucas, Matthew MacPherson, Thomas Meyer, Byron Wagner.

CLASSIFIEDS

VEHICLES

1989 Voyager van, black cherry, 8 pass., 2.5 liter eng., AC, power brakes/steer., 84k miles, runs great, $6,000 o.b.o. Call x3585 or page 0329 or 708-553-0128.

1988 Grand Prix SE, new paint, excell. cond., many xtras, $4,500 o.b.o. Call Gary at x3367 or 815-838-7565.

1987 Ford Tempo GL Sport, 2 dr., 86k miles, oil & filter changed every 2k miles, auto, ps, pb, AC, AM/FM/cass, B.F. Goodrich radial T/A's, $2,500 o.b.o. Call 708-393-7138.

1986 Toyota Camry DX, 4 dr., AC, auto. trans., cass., cruise, pulsed wipers, rear defog. Inter., body & drive train in good cond., $2,750 o.b.o. Call x2230 or 708-328-5891.

1985 Ford Escort, 4 dr., hatch, 91k miles, new brakes, starter, muffler, timing belt, $700 o.b.o. Call x8102 or 708-898-9616.

1985 Olds Cutlass Sierra station wagon, well-maintained, $1,200 o.b.o. Call x8030.

1982 VW Scirroco, drk green, 5 spd., AC, 4 spkr AM/FM/cass, body & inter. in good cond., very reliable, 120k miles, $950 o.b.o. Call Tom at x2062 or 708-232-8750.

1982 Kawasaki CSR 750 motorcycle, street bike, twin cylinder eng. & windshield, 11k miles, excell. cond., runs & looks great, $850. Call x4406 or 708-556-3721.

MISCELLANEOUS

Triton College, River Grove, seeks 1 or 2 people to teach 2 undergrad physics courses during summer session. Good opp. for sen. grad students or post docs to get teaching exper. & credentials. Call Don Lincoln at x5218.

Cub Cadet model 149 lawn/garden tractor, 14 horsepower eng., 48" mower deck, hydro-static drive & hydrolic lift, runs & looks great, excell. cond., $1,500. Call x4406 or 708-556-3721.

Oak octagon dining table w/leaf, 60"x 42" formica top & 4 swivel & rock chairs w/ brass casters, caramel color, very comfortable, 2 yrs. old, $250. Call Rich at x3789.

4 new GoodYear Wrangler AT tires, 30x9.50R 15 LT M+S, in storage, warranty & receipts, $275. Call Brian at x2598 or 708-978-1109.

Whirlpool compact washer & dryer, 2.5 yrs. old in excell. cond. Washer: 2 speed, 6 cycles. Dryer: 3 cycle heavy duty, $350 for set. Call Rocky at x4663 or 708-377-5490.

Seal Inc. model "Commercial-200" dry mounting & laminating press, capacity 18"x22", adjust. temp. setting from 180-350°F, 115v, 1500 watts, like new, $150. Call Ken at x3813 or 708-584-4972 after 5 p.m.

4 cemetery plots in Lincoln Memorial Cemetery, Route 30, Aurora, older section of cemetery, worth $600-$800 apiece, asking $500 ea. Call Wendy at 708-897-4022 or 708-896-2566 or Jim at x4063.

Dewalt 10 in. radial arm saw w/stand, $200; bed liner for full size Ford pickup, $100. Call Dave at x2820 or x2152.

Wanted: used Mac computer equip. for not-for-profit org. Call Winifred Haun & Dancers at 312-227-4496 or Stephen at x4517.

Found April 14: Necklace in parking lot by WH. Please e-mail descrip. to WARNER::CHOPP.

Found: Battery pack for Motorola mobile phone in Veh. Maint. loaner car. Call Margaret at x3307.

REAL ESTATE

Spacious 1 bdr apart. for rent, bright, nice view, balcony, FP, xtra stor. space, swim.

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FermiNews

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The deadline for the Friday, May 20, 1994 issue is WED., MAY 11. Please send your article submissions or ideas to the Publications Office.

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