

FermiNews

The Newsletter of the Fermi National Accelerator Laboratory

“POPULAR SCIENCE” CITES TOP QUARK AMONG YEAR’S OUTSTANDING SCIENTIFIC ACHIEVEMENTS

SHOWCASED IN MAGAZINE’S ANNUAL “BEST OF WHAT’S NEW” SECTION

Fermilab’s evidence for the top quark has been cited by the editors of *Popular Science* as one of 1994’s innovative achievements in science in the magazine’s seventh annual “Best of What’s New” special awards section in its December issue.

Fermilab was also featured in the *Popular Science* 1994 “Best of What’s New” Exhibition held November 9 at New York’s Tavern on the Green. The exhibition showcased the winning selections. Deputy Director Ken Stanfield and CDF Cospokesperson Bill Carithers represented the Laboratory at the showcase.

The 100 *Popular Science* winning

selections were divided into 10 categories: Audio and Video, Automotive Technology, Aviation, Cars, Computers and Electronics, Environmental Technology, Photography, Recreation, and Science and Technology.

Two teams of experimenters at Fermilab, CDF and DZero, are seeking to study the top quark. Last April, physicists at CDF announced the first direct experimental evidence for top.

Current scientific theory predicts six quarks. Scientists worldwide have sought experimental evidence for the top quark since the discovery of the bottom quark at Fermilab in 1977. The top quark is the most massive of the quarks and the last to be discovered.

A research paper, published in *The Physical Review* by the 440-member



CDF collaboration, presented evidence for the production of top quarks in world-record high-energy collisions between protons and antiprotons at Fermilab’s Tevatron particle accelerator. The CDF collaboration also presented its results at a scientific colloquium held April 26 at Fermilab.

The day of CDF’s top announcement was the focus of much media attention. Nearly 50 reporters from around the world traveled to Fermilab for a press conference. Reports of the new evidence literally became a story heard around the world. Through newspapers, magazines, various other publications, television programs, radio broadcasts and computer broadcasts, it is estimated that 55 to 60 million people heard the announcement.

Popular Science’s December issue, featuring the “Best of What’s New,” has been the magazine’s best-selling issue since the awards were introduced in 1988. Look for the feature on Fermilab in the upcoming issue. ■

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LIMON APPOINTED TO HEAD TECHNICAL SUPPORT

Director JOHN PEOPLES has appointed PETER LIMON as the new head of the Technical Support Section for a three-year term. Peter's appointment became effective October 28, 1994.

"It is an honor and a challenge to take up the leadership of the group that, among many other accomplishments, built the superconducting magnets for the Tevatron," said Peter. "Fermilab's Technical Support Section has a heritage of creativity and innovation. For many years, Fermilab was the acknowledged world leader in superconducting magnet technology. Until recently, Fermilab had planned to transfer that leadership role to the SSC. Now, we in the Technical Support Section have the task of rebuilding our Lab's, and our country's, world-class capability in this technology that is fundamental to particle accelerators."

In his appointment letter, John wrote, "I am delighted that you are willing to accept this assignment because it gives

the Laboratory an opportunity to revitalize the superconducting magnet program at Fermilab. Everyone in Technical Support will have to make a contribution if the existing commitments are to be met while the magnet program is being restarted."

As head of the section, Peter will guide many Technical Support projects. The largest current effort, he said, is to build the magnets for the new Main Injector accelerator. Technical Support also has important roles in the upgrades of CDF and DZero. In coming years, Peter said, "the section will continue to work at the forefront of advancing detector and accelerator technology in collaboration with experimenters at Fermilab and other particle physics laboratories around the world."

Peter has worked at Fermilab for 21 years. He previously held assignments in the Neutrino Department (now part of the Research Division) and the Accelerator Division, where he helped



develop magnet systems and install the Tevatron. In 1984 he went to Berkeley, California to work in the Central Design Group on the design of the SSC. He returned to the Lab in 1990 to manage the CDF end-plug calorimeter upgrade project.

"When we were building the Tevatron 15 years ago, it seemed to me that the magnet factory, the predecessor to Technical Support, could work miracles on a more or less regular basis," said Peter. "I soon came to understand that the people in Tech Support considered miracle-working part of their underlying technology. Fermilab has put that technology to good use in the past, and we will surely be using it in the future."

ED CENTER ENTRANCE WORK NEAR COMPLETION

Work on a new entrance at the Lederman Science Education Center is expected to be finished next week. Construction on the upgraded entrance began in September and is the first step in the completion of a new plaza at the Education Center.

During construction, the old wooden entry ramp and earth berm were removed and replaced with concrete stairs and a handicapped-accessible ramp. Work should be completed by the end of November when lamps are installed

along the sidewalk.

According to project engineer JIM BANKS (FESS), construction of the new plaza project, scheduled to begin sometime in the future, will include a concrete walkway from the building to the parking lot and an expanded walk along the vehicle drop-off area. Also planned is a concrete plaza at the intersection of the walkway from the building and the walkway from the parking lot that will serve as a staging area for visitors.



The new entrance to the Lederman Science Education Center during construction. Work on the project is expected to be completed next week.

People & Events

FERMILAB ARTS SERIES PRESENTS

YOUNG ARTISTS SHOWCASE

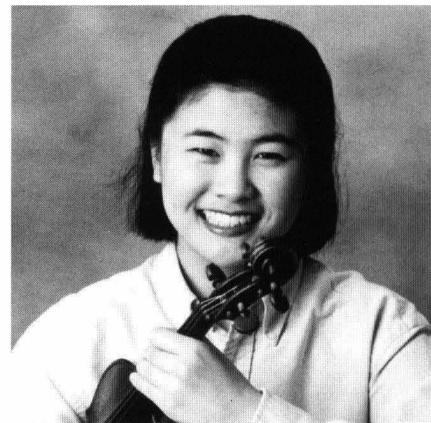
Jennifer Koh, violin; DeMarre McGill, flute; Eric Gargrave, saxophone.

Some of the finest young soloists have come through our own backyard. Each of these exceptional musicians won the Illinois Young Performer's competition resulting in performances with the Chicago Symphony Orchestra. Fermilab is proud to present these rising young stars in the Young Artist's Showcase on Saturday, November 19 in Ramsey Auditorium beginning at 8 p.m.

Jennifer Koh, at age 17, has already distinguished herself as a soloist. Koh shared the top prize at this year's International Tchaikovsky Competition in

Moscow and gained much recognition this summer when she filled in for Midori at Ravinia. She also won first prize at the 1993 Irving Klein Competition, grand prize at the 1992 Tchaikovsky International Competition for Youth and silver medal at the 1992 Carl Nielsen Competition. Koh performs on the "ex-Garcin" Stradivarius of 1731, on loan through the Stradavari Society. Koh will be performing music by Bach, Kreisler and Tchaikovsky and Waxman.

At age 19, DeMarre McGill has already received top honors at the Flute Talk Competition 1993, *Seventeen Magazine*/GM Concerto Competition 1992 and the National Flute Association High



Jennifer Koh

School Competition 1992. He is in his third year of study with Julius Baker and Jeffrey Khaner at Curtis Institute, and will be performing music of Schubert.

Eric Gargrave, saxophonist, is finishing up his studies at Indiana University with Eugene Rousseau. He won the 1991 Illinois Young Performers Competition, performing the Concerto by Glazounov. He will be performing music by Gershwin, Bonneau and Paul Creston.

See the Young Artists Showcase at Ramsey Auditorium on Saturday, November 19 at 8 p.m. Tickets are \$12. Group rates are available. For reservations, call xARTS weekdays from 9 a.m. to 4 p.m.

FOR YOUR HEALTH AND FITNESS

MANAGING HOLIDAY STRESS

For some, holiday stress comes from the extra demands celebration and family time place on an already overloaded schedule. For others, it comes from disappointment that life is not the way it should be. It's all too easy to forget the holiday season is a time for affirming commitment to friends, family, community and enjoying the pleasures of celebration. We get too busy and distracted to appreciate the true meaning of the holidays. Before we know it, they're over and we're exhausted.

Almost everyone experiences some extra stress during the holiday season. But stress can be stimulating and invigorating. Positive stress, called eustress, helps us rise to the occasion. Unless we get completely overloaded, eustress does not appear to cause the harmful health effects associated with distress.

Stress is not something that simply happens to us. We have a great deal of control over what causes us to feel stressed. There are many things we can do to improve our holiday cheer.

Prioritize Goals and Plan Accordingly

Take a few minutes to think about the holiday season. What are the important priorities? What really makes the season meaningful and special for you and your family? Sometimes there is simply not enough time to accomplish all we would like. Look for low-priority items that give you too little pleasure for the time required. Have you always spent hours baking 20 kinds of holiday treats because that was your family's tradition? Maybe one or two kinds will do.

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WELLNESS WORKS UPCOMING PROGRAMS

The following upcoming activities and items are sponsored by the Wellness Works Committee. The members of the committee are: PAULA CASHIN (LS), BERNIE DUGAN (LS), KARIN ETTER (LS), JEAN GUYER (LS), MERLE HALDEMAN (RD), AUDREY HOPPER (AD), DAVID MORRISON (LS), MAE STROBEL (LS) and RON WARD (ES&H).

BLOOD PRESSURE SCREENING
Tuesday, December 13, 1994. Wilson Hall Atrium from 11:30 a.m. to 1 p.m.

STREET SAFE/STREET WISE
Seminar by Kathy Regoni, Mutual Ground and Steve Wennmacher, Au-

rorra Police Department, Wednesday, December 14, 1994 Noon to 1 p.m. in 1West.

GUIDE TO SYMPTOMS

The committee is also offering the American Medical Association's book *Guide to Your Family's Symptoms*. This concise medical reference has special sections for men, women and children. Its charts concentrate on the most common symptoms and illnesses.

A minimum of 50 books must be ordered before the Medical Office will place the order. The cost is \$8.25. The sign up sheet will be available in Medical until December 16, 1994.

NALREC NEWS

Don't miss the 1994 Turkey Party at Kuhn Barn, November 18, from 5:15 to 10:15 p.m. The band Chicago Express will play and Homer C. will D.J. Brats and chips will be served for \$1.50 and 50 turkeys will be raffled. See your Nalrec rep for raffle tickets. For more information call ED JUSTICE at x3632.

Santa Claus will be making his annual visit to the Lab at Nalrec's Children's Christmas Party December 11 in Ramsey Auditorium. Children up to age eight are invited to enjoy cartoons, refreshments and games. The party will be held from 1 p.m. until 4 p.m. For more information call JESSE GUERRA at x4305 or JOHN SATTI at x3088.

PRESSURED?

Are you stressed out? Learn how to manage it December 7 at a noon-time brown bag seminar sponsored by the Employee Assistance Program. Yonah Klem will speak on the biological and psychological components of stress from noon until 1 p.m. in Curia II. She will provide attendees with information, exercises and practical guidelines on stress reduction.

BENEFITS NOTES

DEADLINE TO ENROLL IN REIMBURSEMENT ACCOUNTS APPROACHING

Enrollment forms to sign up for the Health Care Reimbursement Account and/or the Dependent Care Reimbursement Account are due in Fermilab's Benefits Office by the close of business on November 30, 1994. If you need forms or information call the Benefits Office at x3395, x4362 or x4361 or stop by on WH15SW.



New Users Executive Committee Elected

Fermilab users elected a new Users Executive Committee this August. The candidates were nominated at the Users Annual Meeting in June and chosen by ballot. The 1994-1995 committee is (Back row, l to r): Heidi Schellman (Northwestern University), Nick Hadley, chairperson (University of Maryland), Gerry Jackson (AD) and Janet Conrad (Columbia University). (Front row, l to r): Amber Boehnlein (CD), Thornton Murphy (RD), Phil Yager (University of California, Davis) and Daniela Bortoletto (Purdue University). Not pictured: Bruce Barnett (John Hopkins University), Al Goshaw (Duke University), Joey Huston (Michigan State University), Pekka Sinervo (University of Toronto) and Steve Wimpenny (University of California, Riverside).

THE SPIRIT OF GIVING

TAX-FREE PAYROLL DEDUCTIONS

Employees are reminded that now is the time of year to opt to contribute to charities through payroll deductions or onetime contributions. Using the payroll deduction plan, you may choose up to three charitable organizations including a community fund.

The payroll deductions you designate will be made every pay period beginning January 1, 1995 and will continue throughout the year. No pledge below \$12 per year for 1995 can be accepted through the payroll deduction plan. The charities you select must be among those approved by the Internal Revenue Service.

If you take advantage of this plan, you will receive at the end of 1995 a statement of your contributions for income tax purposes. The pledges you made for 1994 will end December 31 unless they are renewed. Please think about what you can do for the upcoming year. Our charitable contributions make a difference in our communities by improving the lives of thousands of individuals.

For additional information contact RUBY COILEY at x8365.

Harper's Index

Number of contestants in the first annual Coffin Race held in Lake City, Colorado, last May: 5

Rank of Virginia, among states with the largest ghost population, according to the Ghost Research Society: 1

NALWO TO HOLD CRAFT WORKSHOPS

Nalwo invites all Lab women to two holiday craft workshops, December 1 and December 8, in the Users' Center from 10:30 a.m. to 1 p.m.

The first workshop features printing projects and various kinds of ornaments made from edible materials. The second highlights origami, a Japanese

paper-folding art. Babysitting is available in playgroup for both events.

Call TANUJA MISHRA at x2034 or 708-406-0430 for reservations. Refreshments to share are welcome. For more information, call MADY NEWFIELD at 708-584-0824.

—Sue Mendelsohn

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. Coffee and cookies will be served on the second-floor mezzanine following each film.

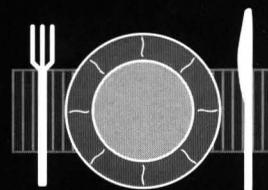
■ November 18: *A Brief History of Time*, documentary on the subject of the best-selling book by Stephen Hawk-

ing of the same title. A view of the origin of the universe by the world's leading cosmologist. Errol Morris, director, Great Britain, 1992, 90 minutes.

■ December 9: *Mon Oncle*, comedy on the recurrent theme of the common man confronted with an increasingly mechanized and depersonalized society. Academy Award, best foreign film. Jacques Tati, director, France, 1958, 116 minutes.

Chez Léon Menu °

Lunch (Wed) \$8.00 • Dinner (Thurs) \$20.00
Reservations: x4512



Wednesday, November 23 • Creamy clam chowder, spinach & three cheese strudel, garden salad, cold lemon soufflé

Thursday, November 24 • Closed for Thanksgiving

Wednesday, November 30 • Chick pea soup, chicken Tangene w/vegetable couscous, pecan pie

Thursday, December 1 • Beef fondue w/assortment of sauces, winter green salad, pear Helene

HEALTH & FITNESS

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Once you have your goals clearly in mind, break down each goal into "doable" tasks and schedule them into your days. Do the most important things first, and don't procrastinate. Streamline tasks whenever possible. Make a list and check things off. Well-designed daily plans based on clearly defined goals help you feel more in control, and a sense of control helps turn distress into eustress.

Create Positive Expectations

Stress is often caused not so much by what is actually happening, but rather by our perception of what is happening. Think about a potentially stressful family gathering. Focus on the people you prefer not to see, their negative comments, all the work involved in the preparation and clean up. Are we having fun yet? Now focus instead on the people you look forward to seeing, the good things to eat, the special family rituals. Whatever you imagine, the secret to creation of eustress from potential distress lies in finding a meaningful perspective on the upcoming event.

Take Time Out to Exercise and Relax
When there is a lot going on, we tend to cut out those activities that are so vital to recharging our energy and taking care of our health. Yet this is when we need those things the most. Exercise helps us relax and enjoy the day and it can provide an anchor in the tumultuous holiday seas.—*Barbara A. Brehm*, assistant professor, Exercise and Sport Studies, Smith College, Northampton, Massachusetts.

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Fermi National Accelerator Laboratory*

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CLASSIFIEDS

■ VEHICLES

1990 Eagle Talon, 5 sp., 4 cylinder, fuel injected, power steering/brakes/door locks/windows, cruise, AM/FM/cass., 37k miles, new tires & battery, \$7,500 o.b.o. Call Tom at x2085 or 708-892-5213.

1987 Ford Escort, 3 dr. HB, 114k miles, AM/FM, auto, new brakes, tune up, runs great, engine in excell. cond., 2 small dents & few rusty spots, \$650 o.b.o. Call Shasi at x3590(W) or x3547(H).

1984 Mitsubishi Cordia-L, 3 dr. HB, new tires/mufflers/exhaust pipes, strong AC, AM/FM/cass., runs well, \$800. Call x2125 leave message.

1979 Olds Cutlass Supreme, 2 dr., re-built 350 eng. & trans., many new parts, VG body, rough int., \$1,500 o.b.o. Call Gerry at x3930 or 708-232-4061.

■ MISCELLANEOUS

Electric typewriter, self-correcting, built-in carrying case, excell. cond., \$55 o.b.o. Call Hank at x8105 or 708-475-1160.

Global Village teleport bronze modem and software in unopened package for Macintosh Performa. Send fax at 9600

bps, data access 2400 bps. \$60 o.b.o. Call Joy at x8209.

Sunbeam mixmaster, stand. model & attach., \$30; antique buffet, \$250; desk expands to dining table, \$50; small child's desk, \$7; piano bench, \$25; queen size electric blanket, \$25; queen size bed complete, \$30; girl's clothes. Call Jim at x5441 or 815-824-2936.

■ WANTED

Vanpool from Louis Joliet Mall is seeking a fill-in rider. Frequent daily seats, also weekly. Call Mike at x3371.

■ REAL ESTATE

Fermilab Housing has openings for on-site rental housing for a maximum period of 12 months. Contact Fermilab Housing at x3777 or FNALV::HOUSING for information.

Condo for sale, 2 BR, 2 BA, 1 car garage. Call Albert at 708-369-8213.

Rural setting, 3 BR ranch in country, 8 miles w. of Batavia, 1.5 baths, full basement, den, 2 car garage, fireplace in basement family room, woodburning stove in living room, 1/2 acre. Call 708-557-2234.



Note: The deadline for the Friday, December 2, 1994 issue is MON., NOV. 21. Please send your article submissions or ideas to the Publications Office.

