# #FermiNews

September 20, 1991 Vol. 14, No.16

Fermi National Accelerator Laboratory

### Fermilab wins R&D 100 award

## Engineer Age Visser earns Lab prestigious honor

Fermilab has been named one of the winners of the prestigious 1991 R&D 100 award for the High-Amperage Solid State Switch (HASSS). Developed by electrical engineer Age Visser (RD/EE Department), HASSS can continuously carry direct currents as high as 10,000 amperes and switch them off in less than 150 microseconds.

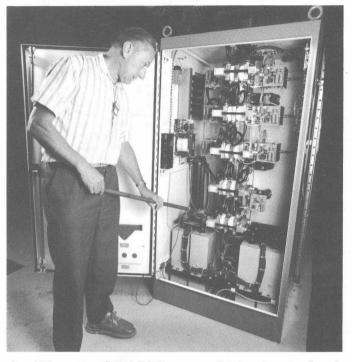
In this competition, the publishers of R&D Magazine recognize the achievement of significant new technology. One hundred winning products are selected annually on the basis of their importance, uniqueness and usefulness from a technical standpoint. This year U.S. Department of Energy laboratories won over one-third of the awards.

Secretary of Energy James D. Watkins said, "I am delighted to learn that the Department of Energy laboratories this year won 36 R&D 100 awards. I congratulate Fermilab researchers. Obviously they have taken to heart one of their laboratory's most important missions, technology transfer, and are making innovative technology available for the benefit of the country."

The extensive superconducting magnet development at Fermilab demonstrated a need for a device such as the HASSS to switch the energy stored in a superconducting magnet to an external resistor when a fault is detected. The HASSS accomplishes this switching task in a reliable, elegant and cost-efficient manner.

Unlike conventional circuit breakers which have a limited lifetime and need to

I congratulate Fermilab researchers. Obviously they have taken to heart one of their laboratory's most important missions, technology transfer, and are making innovative technology available for the benefit of the country.—Secretary of Energy James D. Watkins



Age Visser and HASSS—award winning technology.

be reconditioned after several operations, the HASSS has no mechanical parts and can be used over and over again. Prior to the development of the HASSS, no current-limiting devices were available in ratings as high as 10,000 amperes, 1,000 volts dc.

The HASSS can be used in any application where high-current, high-voltage, high-speed dc switching is required. Particularly relevant is the burgeoning field of superconducting magnet technology which already forms the heart of the medical diagnostic technique known as magnetic resonance imaging and is the basis for future transportation possibilities.

In addition, with appropriate design modifications, the HASSS could be utilized as a high-speed ac switch that would limit large fault currents to preselected levels in high-power alternating distribution systems. Thus the HASSS could protect future ac and dc installations against damage and destruction costing millions of dollars.

The black-tie awards banquethonoring the recipients was held September 19 at the Museum of Science and Industry. Accepting the award on behalf of Fermilab was Associate Director Dennis Theriot. In attendance were Age Visser, developer; Walter Continued on page 7

FermiNews page 1

### David Abler joins Fermilab Education Office

The Education Office welcomes David Abler to serve as Informal Science Program Leader in conjunction with the new Science Education Center. Dave comes from Wisconsin where he taught high school science in a variety of settings in and around the Milwaukee area for the past eight years. In addition to the high school classroom, Dave taught in the University of Wisconsin-Milwaukee Biological Sciences Department and in Marquette University's Upward Bound Program and worked in the Invertebrate Zoology Section of the Milwaukee Public Museum. Before beginning his academic career, Dave worked with the McDonald's Corporation as a Head Manager and owned his own pest control business.

Dave's major responsibilities will include the development and administration of the informal science pro-



#### David Abler

grams. Informal science programs are those learning experiences that, for the most part, take place outside the classroom. Opportunities for recreational and life-time learning will greatly increase with the opening of the Science Education Center, and Dave will spend most of his time working with teachers and students interested in having fun while doing good science. Dave can be reached at 840-8259.

### Nairec news

### Fermilab cookbook

Please don't forget that Nalrec would like your favorite recipes to create the first Fermilab cookbook. Please send your recipes to Nancy Bartlett, MS 315 or Charlotte Smith, MS 228. Recipes must be submitted by October 31. With each recipe, please include your name, department, mail stop and phone number. If you have any questions contact Nancy at x2902 or Charlotte at x4550.

### Social calendar

Get out your calendar and make note of Nalrec's up coming events. Details will follow in coming issues of FermiNews.

Octoberfest	October 11
• Children's Halloween party	October 26
Turkey party	November 15
Children's Christmas party	December 8
Christmas dinner dance	December 21
New Year's Eve party	December 31

### A note from Charlotte

Our September Social Hour was a real SCREAM. Leighann Nurczyk was the contest winner. What a FRIGHTFUL shame if you missed it.

-Charlotte Smith

### Vendor discount rack

## What's New in the Pamphlet Racks?

Pharmaceuticals—A pharmaceutical company provides top-quality nutritional supplements at nononsense prices, with an additional 10% savings to Fermilab employees. Their vitamins range from the multivitamin, prenatal care, nutritional packets for men and

women, children's vitamins and even vitamins for your family cat or dog! Pick up a catalog and order form today!!

Employee photo service—Going on a trip? Wouldn't it be nice to arrive at home with your pictures developed and waiting to be enjoyed and not make that special trip to get your film

developed? Pick up a postage free film processing envelope from the Activities office and mail your film directly to their lab. Color print roll orders are processed and mailed within 24 hours directly to your home.

The vendor discount pamphlet racks are located in the Activities Office, WH 1 E.

## Gym closing

The Fermilab gymnasium will be closed full time from September 9 until September 23. At this time, electrical work will be in progress. Normal operation will continue in the other areas of the Recreation facility. Your patience during this time is appreciated. —Jean Guyer, Activities Office

## PO copy sent via E-Mail

Requestors may now get copies of their purchase orders via E-Mail.

In order for a requestor to get a copy of a PO via E-Mail she or he must signify such by entering a large 'E' in the upper left hand corner of the Purchase Requisition next to the Fermilab logo.

When an associated PO is created, a copy will be sent to the requestor's E-Mail address, as it appears

in the Fermilab telephone book. Corrections to E-Mail data can be made through Personnel at x4367.

It will be the requestor's responsibility to determine the disposition of the file(s) sent to their E-Mail address.

Any questions regarding this procedure can be directed to Information Systems at x3275.

—Glen Winter

## Give it your energy

At the end of September, as summer draws to a close, sale prices on air conditioning units are often advertised.

If you're in the market for a room air conditioner, you should be aware of the Energy Efficiency Rating (EER) numbers.

The EER rates the energy efficiency of similar appliances. The higher the EER number, the more efficient the appliance. The Federal Trade Commission requires that these numbers appear on appliances' Energy Guide labels.

Example: EER's for room air conditioners can



be as low as 5.4 and as high as 11.5. The 11.5-rated room air conditioner is more than twice as efficient as the 5.4 unit of the same capacity and uses less than half the electrical energy.

If everyone raised airconditioning temperatures 6 degrees, we'd save the equivalent of 190,000 barrels of oil everyday.—*Tips* for Energy Savers, DOE

## **Quality corner**

The following energy saving suggestions was sent in to the Office of Quality Control and Value Engineering. The response was prepared by **Steve Krstulovich**, Engineering and Energy Manager, Facilities Engineering Services Section.

Suggestion: I don't know really who to send this to but I figure you could put me on the right track.

I was at an electrical supply company open house the other day and I saw a demonstration on some new fluorescent lamps and electronic ballasts for the lamps. The company claimed big savings by using these new lamps and the electronic ballasts as opposed to magneticballasts. I don't really know if he was telling the truth, but I grabbed some handouts. If it does what he says, it could save Fermilab some decent pocket change. Anyway, any idea on who I could talk to?

Response: Thank you for taking time to point out possible savings for the Lab by using more efficient lighting. These are excellent ideas and have actually been funded by DOE for up-coming retrofit in many areas. The methods we will be using are quite varied, depending on the application. In general, we have settled on the use of hybrid ballasts due to the harmonic disturbance caused by electronic units, and specular reflectors with partial delamping. Please pass on any other suggestions you may have, and thanks once again.

If you have a suggestion on how to improve the quality, efficiency, reliability or effectiveness of a Laboratory service or operation, please send it to Mark Bodnarczuk, MS 200 or BITNET Bodnarczuk @FNAL.

# What a coincidence

New hire Brian Petersohn (CES) won't have any difficulty remembering his Fermilab start date, because it is the same as his ID number. Employed on 9-9-91, Brian was issued ID number 9991.

## Harper's index

Number of roller coasters at the Cedar Point Amusement Park in Sandusky, Ohio: 10

Amount of cash found on the Cedar Point grounds last year by its maintenance crew: \$5,300.

## Fermilab Art Series presents

The Mozartean Players

Saturday, September 21, at 8 p.m.

Ramsey Auditorium

Admission: \$11

Critics have hailed The Mozartean Players' performances of the Classical repertoire as "breathtaking," "revelatory" and "splendidly executed." Yet many of these works have been performed on original instruments before, and they have certainly been performed on modern instruments by inspired musicians. What is so special about The Mozartean Players? This outstanding piano trio combines a mastery of the original instrument idiom with a level of technical ability rivaling that of the best modern musicians. Sample the artistry of The Mozartean Players as they perform at Fermilab's Ramsey Auditorium on Saturday, September 21.

The instruments used by The Mozartean Players are all *original;* they were constructed in the eighteenth century. Their sound is distinctive; their interplay in ensemble produces fascinating acoustical textures and reveals exciting, long hidden dimensions in familiar music. Classical instruments offer a transparent blend of clear and pure timbres uniquely suited to the music written for them.



#### The Mozartean Players

Playing on original instruments does more than satisfy a curiosity to hear works as their composers would have heard them; it may illuminate why the composers wrote as they did. A performance by Mozartean Players is not just a scholarly presentation, but a dynamic artistic experience. While taking stylistic concerns and the special requirements of the instruments into consideration, the group gives exciting, powerful and authentic performances.

Founded in 1978, The Mozartean Players regularly tours the United States and abroad. The group is based in New York and is heard in prestigious halls throughout that city, including Lincoln Center, Carnegie Hall and a continuing series at the Metropolitan Museum of Art. Steven Lubin (fortepiano) is an accomplished soloist and musician, performing on both historical and modern

piano. He has recorded the complete Beethoven concerti with Christopher Hogwood, and is in the process of recording the complete Mozart concerti with The Mozartean Players, Myron Lutzke (classical cello) has toured throughout the United States with Aulos Ensemble and has been a guest soloist with such groups as The Brandenburg Collegium, Concert Royal and the St. Luke's Chamber Ensemble, Stanley Ritchie (classical violin) has had a diverse performing career, including positions as concertmaster of the New York City Opera and first violin of the Philadelphia String Quartet. He has performed as a soloist at the Mostly Mozart Festival. Tanglewood and Ravinia. An internationally recognized authority in seventeenthand eighteenth-century violin per-formance practice, he is on the faculty of the Early Music Institute at Indiana University.

# International Film Society

The month of October offers an award winning movie classic and a Halloween double feature that will leave you "howling."

All films are shown in Ramsey Auditorium at 8 p.m. (Double feature showings are at 8 p.m. and 10 p.m.) Admission costs \$2. The October schedule is:

Friday, October 11: To Kill a Mockingbird

Gregory Peck won Best Actor for his portrayal of a Southern lawyer who defends a black man accused of raping a white woman. Novel by Harper Lee. R. Mulligan, dir. U.S., 1962, (129 min.)

Friday, October 25: A Halloween double feature presentation

#### Plan9 from Outer Space

B-grade horror movie with Bela Lugosi and Vampira. Arguably, the worst movie ever made. Edward D. Wood, Jr., dir. U.S., 1959, (79 min.)

## Attack of the Killer Tomatoes

Spoof on B-grade monster movies where giant tomatoes terrorize San Diego. John De Bello, dir. U.S., 1978, (87 min.)

## Fermilab Lecture Series presents

Mozart and the Fortepiano

Dr. Steven Lubin, The Mozartean Players

Friday, September 20, at 8 p.m.

Imagine vourself a member of the audience in the premiere performance of Beethoven's Moonlight Sonata, or Mozart's Piano Concerto in C Major. What would these familiar masterpieces sound like on the first hearing? What kinds of social influences would affect your comprehension of the music being performed? Dr. Steven Lubin answers these questions and illuminates the other aspects of the musical world of the 18th century in his lecture Mozart and the Fortepiano in Fermilab's

Ramsey Auditorium on Friday, September 20 at 8 p.m.

One of the world's foremost fortepianists. Dr. Lubin will use this beautiful instrument in his lecture to illustrate performance practices of the music of the 18th century. The fortepiano, a forerunner to the modern piano, offers a softer, warmer sound. A performance of classical music on the fortepiano as opposed to the modern piano allows one to go back in time and hear the music as it was written to be played. Dr. Lubin will also identify some of the values of "early music" research and performance. What did the audiences expect of the 18th century composers? How did current events of the time affect both the compositional and performance

aspects of 18th century music? How did composers utilize form in composition? How did the audiences perceive the strict forms used by Mozart, Beethoven and Haydn, and how does that differ from our present day conceptions?

Steven Lubin is quite accomplished on the modern piano as well as the fortepiano. He has recorded the complete Beethoven Concerti with Christopher Hogwood, and a number of the Beethoven sonatas on Decca. He has also recorded music of Chopin on the Harmonium Mundi label. His performance roster is extensive, including concerts with the Mozartean Orchestra of Salzburg, Los Angeles Chamber Orchestra, and St. Paul Chamber

Orchestra; and performances at the Mostly Mozart Festival in Lincoln Center. Ravinia and Kennedy Center. His expertise in the music of Mozart is highly regarded in both the performance and academic realms. He is performing a series of concerts at Lincoln Center this year in honor of the Mozart Bicentennial, as well as lecturing at a number of international symposiums. Although the majority of his time is now spent performing, he has taught Music History at Cornell University and published a number of articles.

Admission to Dr. Lubin's lecture is \$3. For further information or telephone reservations, call 708-840-ARTS weekdays between 9 a.m. and 4 p.m.

# Fermilab Gallery exhibits Jan Beekman art

A collection of paintings by artist Jan Beekman is currently on display at the Fermilab Gallery on the Wilson Hall second floor cross-over. The exhibit will continue through October.

Jan Beekman was born in Brussels, Belgium in 1929. He received a Certificat d'etude from the Academie Royale des Beaux Arts in Brussels. He has always been an artist and active in the arts and his professional activities include

designing for the Royal Flemish Theatre through the 60s into the early 70s. During this same time he was the designer for the BRT, the Belgian National Television. More recently Jan was a professor of Drawing and Painting at the Rijkscentrum Kunstonderwijs (National Center of Advanced Art Training) in Brussels. One of his Visiting Artist appointments brought him to the United States as Artist in Continued on page 6



Susan Hanson (r) and Elizabeth Gonzalez (1) of the **Publications** Office pay a lunch hour visit to the **Fermilab** Gallery to view the Beekman collection.

## **Health & Fitness Tip**

## Are vitamins really necessary?

Most nutritionists agree, that if you eat a well-balanced diet and follow a healthy lifestyle in general, vitamin pills are unnecessary. However, some conditions may be helped by sensible vitamin supplementation.

### Weight loss diets

People on low-calorie diets (under 1,200 calories per day) may not be able to get all the vitamins they need from the amount of calories they eat each day. This is particularly true of diets lasting more than a few weeks!

## Pregnancy and breastfeeding

Most obstetricians recommend pre-natal vitamins for their pregnant patients to guard against nutritional deficiencies. Supplements with additional iron and folic acid are generally recommended. Lactation also increases a woman's need for nutrients, so supplementation may be recommended during breastfeeding as well.

### Aging

As you grow older, your metabolism slows down, making it necessary to get the same amount of nutrition from fewer calories. Wise food selections are most important, but your doctor may also recommend a daily multi-vitamin for added "insurance."

#### If you supplement.....

If you feel you can benefit from vitamin supplementation, check with your health care professional about recommended dosage. Many vitamins can be toxic when taken in excess amounts.

The Health & Fitness Tip was submitted by the Recreation Office. Their source was: *Hickory Ridge* Fitness Center Pamphlet

### New from the stockroom

1246-3105 Pliers, long nose, vise grip, 2 ½ inch. Jaw length w/wire cutter, 9 inch.

1355-4015 Paper, computer, plain white, 2-ply, NCR type, perforations both sides, 9 ½ wide x 11 long, pin feed.

1375-0565 Easer, marker board, for use on Contempo boards, Sanford P/N 81505 or equal.

1335-0310 Form, PLEASE COPY, 3M POST-IT P/N 7670, 3x4 inches, 50 sheets per pad.

### Art Gallery continued

residence at the Department of Theatre at the University of Michigan, Ann Arbor.

Art historian Martha Keller described Jan Beekman's work in his first U.S. show in Ann Arbor, Michigan in 1983 as follows: "This artist explores space as concept, a space as dreamlike as it is real." While there has not been a complete departure from previous concerns or ways of presenting them, his exposure during the intervening years to the physical dimensions and culture—both contemporary and ancient—of North America, is reflected in the significant new directions his work has taken.

Among his more recent solo exhibitions were the Lineart 90 in Gent Belgium, the International Art Gallery in Lasne, Belgium and the Zaks Gallery in Chicago. Upcoming One Person exhibits will be a 1992 show in the Gallery of Modern Art in Gent, the PMMK (Museum of Modern Art) 1993-4 in Ostend, Belgium and the Musee des Beaux Arts de Verviers 1994 in Belgium. His paintings are in the art collections of the Belgium State, the Industrial Group C&A, Netherlands, ASLK Bank in Brussels, Ingersoll Corporation in Rockford, Illinois Benedictine College, Lisle, Illinois and many other public and corporate collections. Private collectors of his work are from many countries in Europe as well as the USA. Jan Beekman currently has his studio in Chicago.

### **Benefits notes**

It's that time of year when employees have the opportunity to transfer their medical and dental coverage from one plan to another. The Laboratory continues to offer the traditional Connecticut General (CG) indemnity medical plan and four Health Maintenance Organizations: Rush Anchor/Access, CIGNA Health Access, Dreyer and HMO Illinois. The dental options are the traditional Connecticut General dental plan and CIGNA Dental Care plan.

During the Open Enrollment period, September 16 -September 27, you can elect to transfer your medical coverage from one plan to another. Please be aware that your election does not become effective until October and remains in effect until the next open enrollment.

If you elect to transfer your medical and/or dental plan, you will have to complete and return your enrollment forms to the Benefits Office no later than September 27. If you elect to make no change, you do not have to do anything.

If you have any questions, feel free to call the Benefits Office at x3395, 4362 or 4361.

## Roundtable monograph highlights Fermilab's future

The future of Fermilab and its impact on technology, economics, culture and education is highlighted in the recently published Fermilab Industrial Affiliates Roundtable monograph. Titled Fermilab III, the Great Computer Debate and Technology for the Nineties, the 165 page volume focuses on the Fermilab III project with articles describing the Main Injector proposal, the plan to keep Fermilab at the forefront of scientific computation and needed new technologies.

Fermilab's facility was assigned the highest priority in the High Energy Physics Advisory Panel's (HEPAP) report on physics in the nineties. The purpose of the Main Injector and the overall improvement project called Fermilab III is to extend the discovery potential for U.S. high en-

ergy physics in this decade by developing and enhancing the capabilities of the existing Tevatron Collider. "In part, this is a recognition of the possibility that this is likely the only place where the top quark can be discovered in the next ten years," states Steve Holmes in the monograph's opening article, *The Fermilab Main Injector Proposal*.

The Great Debate—"Big Boxes vs. Little Boxes," an article by Fermilab Computing Division Head Tom Nash, and Associate Division Heads Joel Butler. Irwin Gaines and Jack Pfister outlines the computing problems faced by the Laboratory as experiments become larger and more complex. This article, which summarizes a very lively debate, offers both sides of a controversial issue. In a follow-up article. Irving Wladawsky-Berger, IBM Assistant General Manager, offers his reprise to the big box little box debate.

In a concluding article, Dick Carrigan summarizes the scientific, technological and economic impact of Fermilab III. According to Dick, "Fermilab III offers some of the best opportunities in the world for new science in the next ten to fifteen years. But the impacts of Fermilab III extend well beyond science. The program will force feed the development of important new technologies, some desperately needed for the SSC. Beyond that, the Fermilab III program will extend the current impact of the Laboratory into the future in a wide variety of cultural and educational areas."

Also contributing articles to this volume were John

Peoples, Fermilab Director; Brig Williams, professor of physics at the University of Pennsylvania; Vicky White, Head of the Computing Division Data Acquisition Support Department; F. Grant Saviers, Vice President of Digital Equipment Corporation; and John Venard, Fermilab Licensing Officer.

The editors for this publication were Dick Carrigan, Cindy Crego and Susan Grommes. Cover design was by Angela Gonzales, Directorate. Print production was by Elizabeth Gonzalez, Publications Office.

This is an informative book to be read and shared. Copies of Fermilab III, the Great Computer Debate and Technology for the Nineties are available from ORTA, WH2W, x3333.

# R&D100 award winner continued

Jaskierney, EE Department technician who assisted Age on the development of the HASSS; Bob Trendler, Associate Head of the Research Division; Paul Czarapata, Electronics/Electrical Department Head; Dick Carrigan, Head of the Office of Research and Technology Applications and John Venard, Fermilab Licensing Officer.

The 1991 award marks the thirteenth time in the last twelve years that Fermilab has received a coveted R&D 100 Award. Those earning the award for the Lab in the past include Charles Schmidt (1980), Dick Lundy and Robert Wilson (1980), Peter McIntyre (1981), Frank Cilyo (1983), Ed Barsotti (1983), C.H. Rode (1983), Hans Kautsky (1983), Ron Walker (1984), Hans Jostlien (1985) Alan Baumbaugh (1986), Tom Nash (1986 and 1989) and Estia Eichen (1989).



Past recipients of the R&D 100 Award view the DOE traveling technology display that was featured at Fermilab during the month of July. From left to right: Alan Baumbaugh, Hans Jostlien, Hans Kautzky, John Albrecht (DOE), Andy Mravca (DOE), Tom Nash, Chuck Schmidt and Ron Walker.

### Cla\$\$ified ad\$

#### Motorized vehicles

1981 AMC Concord DL 258 6-cylinder, little rust, runs good, 95k mi. \$795 o.b.o. Call Alan at x3575 or 708-897-4979.

1984 Nissan Pulsar NX Automatic, sunroof, pow. str., pow. brakes, am/fm, good con., 82k mi. \$2000. Call Yan x2024 days or x4706 evenings.

1978 Chevy Malibu station wagon. 93k mi., still reliable, runs well, no rust. \$500 o.b.o. Call Bruce at 708-355-7209.

1986 Ford Taurus/LX. V-6, ps/pb/at/pw/pl/AC/pwr. mirrors, pwr. seats, pwr. lumbar, 8-spkr stereo, electronic instr., tilt, cruise, trip computer, auto climate, autolamp, alum. whls., pirelli tires. Very clean, 1 owner, \$4,500. Call Therese at x4401 or 708-293-5681.

1983 Yamaha Maxum 750 CCs, shaft drive, 18k mi., 45 mpg, excel. con., \$1,500 o.b.o. If interested contact DISNEY::CARRIER or call 708-393-62854 and leave a message.

**1972 Honda 350cc motorcycle**, w/3 new tires, \$250. Call George at x3171 or 815-786-6320.

### **Miscellaneous**

Hewlett Packard 485X scientific expandable calculator. Brand new, never used, 2100 functions. \$275. FermiNews page 8 Call Alan at x3575 or 708-897-4979.

3-piece colonial bedroom set. Triple dresser with mirror, chest of drawers, full-sized bed, great con. Asking \$375. Call Denise at x4838 or leave a message at x4373.

Computer & system :386-25, math compressor, 4 MEGRAM (32 bit), 32 cache, 1.2 FD, 1.4 FD, 84M HD, DOS 5.0, new image design program and targa 16 board, digitizing tablet, Roland GRX-400 A-E size 8 pen plotter, extra pens, all cables, paper and video cables for targa board. \$17,500 Sieko 5504 A-size thermal color printer (3 pass memory parallel printer interface), software and cables. \$4,800. Epson 2550 color printer. Cables and extra color ribbons. \$900. All units boxed and will deliver. Call Mike at 708-879-8184 after 6 p.m.

Sears deluxe swingset, good condition, ready to move. \$25. Call Sharon x3884, days.

AT&T PC 6300. IBM compatible, 8086 processor running at 8MHZ, 8087 math coprocessor, 640k RAM plus 2MB expanded RAM, 30 MB hard card, mouse, monochrome (green) monitor, set up with DOS 5. \$275. Call Dorothy at 708-393-3239 after 5 p.m.

Diamond ring/gold ring set, .45 carat, appraised at \$1,600. Asking \$850, negotiable. Call Mike at x4518.

New Blaupunkt "Newport" am/fm cassette car stereo, \$150. Jenkins upright piano, \$250. Murray 20" gas lawnmower, \$75. 8-gallon console humidifier, \$25. Call Dan x4605 or 815-756-6558.

#### Real estate

House for sale. 469 Jackson St., Aurora. 1 ½ story, 4 bdrms, 1 ½ bath, 2 enclosed porches, full basement with semi-finished office/utility room, large yard. All appliances stay: washer, gas dryer, stove, refrig. Reduced to \$59,900. Call Martha at 708-879-4114 for appointment.

Warrenville house for rent. Thornwilde subdivision, 5 mins. from Lab, 3 bedrms, big living/dining room, eat-in kitchen, 1½ bath, fireplace, AC, garage, all appliances, new carpet, new no-wax, newly painted, \$850 per month. Call x4597 or 708-983-0279.

### Pets

English springer spaniel pups. Black/white and liver/white. Females, \$300 and males, \$275. Call 708-844-1525.

Free to good home. 6-month-old Lab/mix puppy. Very friendly and playful. Has all shots, comes with doghouse. Call Mike x2220 or 708-557-2234.

### Wanted

Roommate wanted to share 3 bdrm house. 4 miles from Lab, just off Mitchell Rd in Aurora Township. Call Joe x3743, page 192 or 708-897-0732.

## Publications available

Copies of the 1990 Fermilab Annual Report and copies of the latest issue of Fermilab Report are available in the Publications Office, WH6NW. Stop by and pick up yours. No phone or mail orders, please.

FermiNews is published by the Fermilab Publications Office, MS 107, P.O. Box 500, Batavia, IL 60510 708-840-3278 FNAL::TECHPUBS Editor: C. Crego Asst. Editor: E. Gonzalez Circulation: S. Hanson Photography: Visual Media Services

Fermilab is operated by Universities Research Association, Inc. under contract with the U.S. Department of Energy.

The deadline for the Friday, October 4 issue of FermiNews is Wednesday, September 25. Please send your article submissions or ideas to the Publications Office.