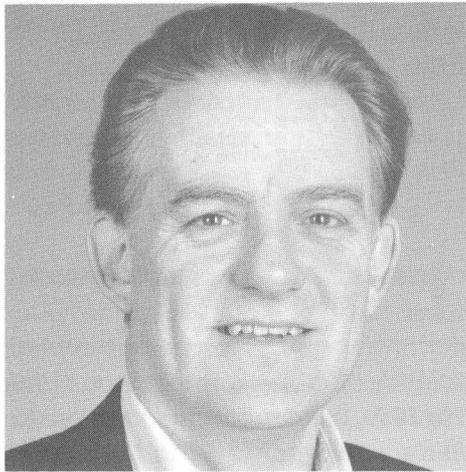
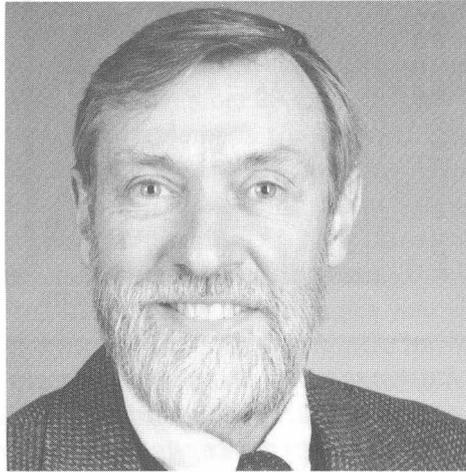


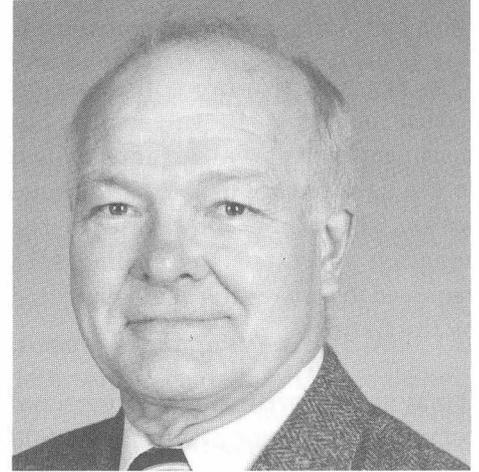
Staff Physicists Elected to APS Fellowship



Chuck Brown was elected as an APS Fellow "For his leadership in a series of experiments studying dimuon production by high energy hadrons."



Gene Fisk, elected an APS Fellow, "For his leadership in neutrino physics research, and his skilled management of large scientific projects including superconducting high-gradient quadrupoles and Fermilab's DØ detector."



Don Young was elected "For contributions to the science of linear accelerators including the development of computer programs for RF fields and beam dynamics in accelerating structures, thereby advancing their design and construction."

Chuck Brown (Physics Section), **Gene Fisk** (RD/DØ Construction Department) and **Don Young** (AD/Linac) were recently notified that they had been accepted to Fellowship in the American Physical Society (APS) during the October 28 meeting held in Urbana, Illinois. Their names and citations will be published in the February 1991 *Bulletin of the American Physical Society*.

Founded at Columbia University in 1899, the American Physical Society, with its 41,000 members, is the leading society of physicists in the United States. The purpose of this non-profit, scientific and educational organization is the advancement and diffusion of the knowledge of physics. The society accomplishes its purpose principally through the publication of scientific journals and the organization and management of meetings for the exchange of scientific ideas and results.

For a member to be elected to Fellowship in the APS, a nomination must be signed by two members of the Society citing the principal contributions of the candidate to physics. Only members who have contributed to the advancement of physics by independent, original research, or who have rendered some other special service to the cause of the sciences are elected into Fellowship. The fulfillment of these qualifications is usually determined by an examination of the published works of the candidate. Each year, less than one-half of one percent of the current membership of the Society are recommended nominees to Fellowship.

Other Fermilab staff members who have been elected into Fellowship are: **Jeff Appel**, **Bill Bardeen**, **Jim Christenson**, **Estia Eichten**, **Keith Ellis**, **Bill Fowler**, **Drasko Jovanovic**, **Edward Kolb**, **Leon Lederman**, **Fred Mills**, **Tom Nash**,

King-Yuen Ng, **Rich Orr**, **John Peoples**, **Chris Quigg**, **Alvin Tollestrup**, **Frank Turkot**, **Michael Turner** and **Taiji Yamanouchi**.

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Give it your energy

40 watts + 40 watts = 200 watts

Does this equation surprise you? It shouldn't. It describes how much power is really consumed when a fluorescent light is left on.

The average two-lamp fluorescent fixture uses two 40-watt bulbs, but most people don't realize that a ballast in the light fixture uses 20 additional watts. The other 100 watts in the equation represent the cooling load required to remove the heat generated by the fixture!

It may also surprise you that a personal computer and laser printer use 1,200 watts just idling!

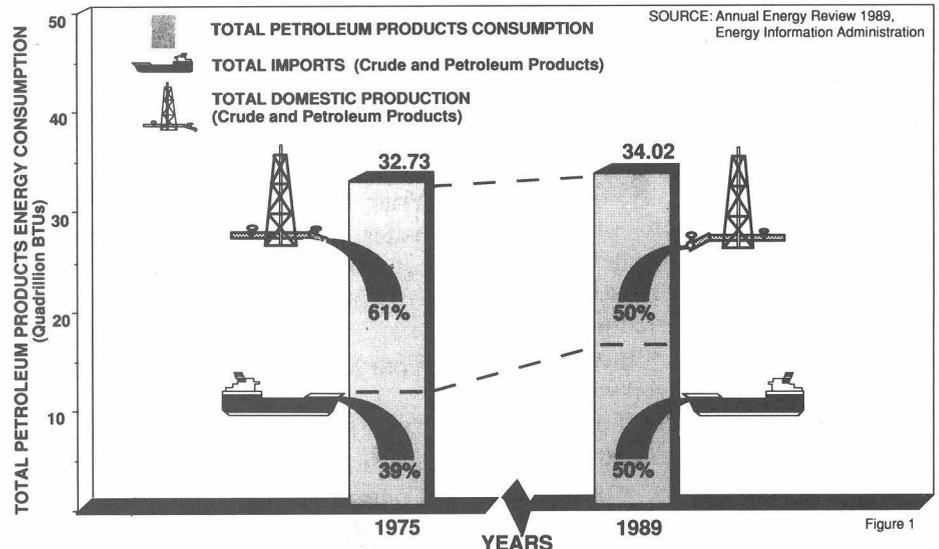
A single office in which lights and computer equipment are left on overnight can result in almost \$500 a year in unnecessary expense—an expense for which we all pay.

DOE's commitment to energy conservation

In an October 19 memorandum to DOE and contractor employees, Secretary of Energy, Admiral James D. Watkins, stated that he had been directed by President Bush to initiate the development of a comprehensive national energy strategy and he called upon DOE and contractor employees to provide an example of energy efficiency to the rest of the nation. According to Admiral Watkins, "Energy efficiency is one of the most effective tools at our disposal to reduce our dependence on oil imports, reduce energy costs to consumers and have a positive effect on the environment. ...The recent events in the Middle East underscore the need to reduce U.S. reliance on oil imports from unstable regions."

DOE's energy conservation program goals FY 1986-1995

1. Reduce energy consumption in buildings by 10% per gross square foot. *FermiNews* page 2



Americans are using energy more efficiently. Energy use per household declined by 27% between 1978 and 1987. In 1989, per capita consumption was 14% less than per capita consumption in the peak year of 1973. But, in spite of significant gains in energy efficiency, our dependence on energy supplies from unstable regions has grown.

Continued improvement in energy conservation makes good sense. By using energy more efficiently at work, on the road and at home, we can reduce our dependence on oil imports and reduce Federal spending.

2. Reduce energy consumption in metered processes by 10% per gross square foot.

3. Reduce vehicle and equipment energy consumption by 10%.

Your role in DOE's energy conservation efforts

As a DOE or contractor employee, you are vital to the agency's energy conservation efforts. You can do your part in conserving energy by participating in energy awareness activities and by submitting energy conservation ideas. In addition, you can be alert for ways to modify processes or habits to make your work energy-efficient.

Here are some examples of energy conservation habits:

Turn off lights in unoccupied rooms, including your office during lunch breaks and at the end of the day. Forget the myth that it takes more energy

to relight a fluorescent lamp than to let it burn.

Turn off copying machines every night; even the standby mode consumes energy.

Turn off personal computers and printers when not in use; it won't hurt them. Don't confuse mainframe computers with personal computers. Each has different operating requirements.

More energy conservation ideas

You can obtain additional energy conservation information from:

- Your local electric, gas and water utility which may also offer an energy audit service for your home;
- Your state energy office and
- Tips for Energy Savers*, a pamphlet available from the DOE Conservation Referral Service, P.O. Box 8900, Silver Springs, MD 20907, 800-523-2929.

The mapping of the universe

Astronomers announced last week a project to map the universe 100 times more completely than ever before. Scientists from the University of Chicago, the Institute for Advanced Study and Princeton University say their digital sky survey will help explain how galaxies formed and should settle astronomers' debates about whether clusters of galaxies are arranged in sheets, bubbles or other large-scale structures.

To complete the survey in ten years—rather than the 100 years needed with standard methods—the institutions will combine a wide-angle telescope, a gigantic state-of-the-art digital camera and a robot-controlled spectrograph.

The digital sky survey will produce a three-dimensional map of one million galaxies, 100,000 quasars and numerous intergalactic gas clouds. It will also produce a two-dimensional color map of one hundred million galaxies.

"Nobody has ever made such an elegant and detailed map of the sky," says Bruce Margon, chairman of astronomy at the University of Washington and chairman of the Astrophysical Research Consortium (ARC), under whose auspices the project will take place. At a meeting held in Chicago on Tuesday, November 20, the ARC board voted to implement the project. The telescope and its instruments will be placed on Apache Point in the Sacramento Mountains of New Mexico. **Fermilab** is expected to join the three institutions and play a major role in the survey, providing computer hardware and software to store and analyze the survey's ten million megabytes of information.

Sophisticated computer software is required to analyze and classify spectra. This is an area of science where particle physics has made great progress and the three institutions stated in a recent press release that

they look forward to full scientific collaboration with Fermilab, particularly in the areas of data acquisition and analysis.

"A key scientific objective of the digital sky survey—to understand the evolution of the early universe—is at the interface between experimental astrophysics and particle physics," said John Peoples, Director. "We hope that our expertise in analyzing particle physics collisions will be central to analysis of the survey's digital data. We also expect to learn from the astronomy community's expertise in CCD detectors, a technology that could help advance our work in particle detectors. In many scientific and technological ways, this project will bring the two sciences together."

The size of the mapping database is comparable to that of a telephone directory listing 250 billion people. The complete data archive will ultimately be available for general use by researchers throughout the world.

An Art Series present

Are you wondering what to get that "person who has everything" for Christmas? Why not give the gift of music, dance, theatre or knowledge? The Fermilab Arts and Lecture Series now has gift certificates available to assist you in shopping for that perfect present. The recipient of your gift may choose from a variety of different styles of performances presented by nationally recognized artists, or he or she may elect to attend a lecture chosen from a wide range of topics, each presented by an expert in his or her field. All programs begin at 8:00 p.m. in Ramsey Auditorium, with plenty of free parking available. After each performance, meet the artist in a reception open to all audience members. Browse over our listing of upcoming events, and then start your Christmas shopping here by calling 708-840-

ARTS weekdays between 9:00 a.m. and 4:00 p.m. During non-business hours, an answering machine is available for information and ticket orders.

January 12 – **The New York Chamber Soloists** present an outstanding evening of chamber music for strings, oboe, bassoon, clarinet and piano by Mozart, Poulenc, Ravel, Milhaud and Schumann.

January 18 – **Thomas Borak** of Colorado State University lectures on *Radon in Your Home and Radium in Your Water*, a topic of concern to many area residents.

February 9 – **The Los Angeles Chamber Ballet** enchants audiences of all ages with the classic tale of *The Little Prince*.

March 2 – **The Skylight Opera Theatre** performs Bizet's sultry, tragic tale of romance, *Carmen*.

April 6 – More tragic romance, but of a jazzier nature: the **Jim Cullum Jazz Band** assisted by **William Warfield** present Gershwin's *Porgy and Bess*.

May 3 – Noted Scottish folksinger and NPR radio personality **Jean Redpath** is the guest lecturer.

May 4 – **Jean Redpath**, considered Scotland's foremost balladeer, is joined by cellist **Abby Newton** for a special evening of folk music.

If you would like to purchase either a gift certificate for a friend or tickets for yourself, or if you'd just like more information, contact the Fermilab Box Office at 708-840-ARTS weekdays from 9:00 a.m. to 4:00 p.m. — *Janet McKay*

Buffalo auction

Gray November skies and gusty fall winds failed to dampen the enthusiasm of the crowd of nearly 100 who attended the buffalo auction on November 9. The crowd was varied: wizened farmers sporting caps advertising seed companies rubbed shoulders with long-haired journalists while a group of brightly clad preschoolers watched wide-eyed.

The pace was lively with auctioneer Steve Almburg keeping up the quick chatter and patter known to the trade. Usually two or three buffalo were in the auction corral at a time with the others kept waiting in a veritable maze of holding corrals. The crew—positioned at strategic places throughout the maze—kept the animals moving along in a most efficient manner. Once in view of the public, some of the buffalo were relatively calm and docile whereas others snorted and charged about as though auditioning for a wild west movie.

The Roads and Grounds crew schedules a buffalo auction every eighteen to twenty-four months in order to keep the herd down to a manageable number. The Fermilab herd roams on ninety acres whose carrying capacity is roughly seventy-five animals. According to **Bob Hall**, head of Road and Grounds, chief herdsman **Don Hansen** makes the recommendations as to which animals should be sold.

Speaking of the smoothness and efficiency of this year's auction, Bob noted, "As always, the crew worked hard and did a fine job. I am grateful." Many of the spectators were also grateful to **NALREC** who served coffee and lunch (no buffalo burgers!) throughout the morning's activities.

In this year's auction, 58 buffalo—ranging from calves to a 12-year-old



Don Hansen, chief herdsman, opens the corral gate for the next buffalo to be auctioned. A crowd of nearly 100 spectators and serious bidders gathered to participate in the event. In order to thin the herd, 58 buffalo were sold.

bull— were sold for a total of \$35,500. As expected, the bull fetched the highest price, \$1,675. He was purchased by Walter "Duke" Hasselbring of Watseka, Illinois who was the biggest buyer of the day going home with a total of 27 Fermilab buffalo. This year there were eight different buyers with a farmer from Michigan travelling the greatest distance.

Prior to the auction, veterinarian Dr. Howard Koch examined the entire Fermilab herd and proclaimed, "The herd really looks good this year." Koch visits the herd twice a year to give a series of vaccinations for various diseases and to perform the blood tests necessary for sale and shipment across state lines.

The total sales of the 1990 auction were below that of the last auction, held in March of 1989. Bob Hall attributed the decline to several factors ranging from the overall stagnation of the economy to poorer attendance (some farmers were still busy in the fields due to poor weather earlier in the season) to competition (a big auction is scheduled for South Dakota later in the fall). He also noted that the extremely high prices demanded at Fermilab's previous auction may have scared some potential bidders away.

Although disappointed at the auction's financial intake in 1990, Bob Hall joins other employees and countless visitors who take great pleasure in this happy, healthy herd of buffalo who roam at a home called Fermilab.

Education update

The Friends of Fermilab/Education Office Topics in Modern Physics (TMP) project has been receiving nationwide attention since it was highlighted in an October 1990 *Physics Today* article titled "Teacher's Guide Covers Modern Physics Topics." TMP was a two-year program designed to update high school physics curricula and improve instruction. During the project, a teacher *Resource Book* was developed which contains current information, demonstrations and activities on accelerators, detectors, elementary particles, symmetry, cosmology and relativity. The three volume book enables high school and first-year college teachers to *sprinkle* modern physics throughout their courses.

Each volume features two introductory articles written by Fermilab physicists, selected articles from journals, audiovisual references, a bibliography and selected classroom materials including activities and dem-

onstrations. In Volume 1, "Accelerators and Detectors," introductory articles were written by **Ernest Malamud** and **Drasko Jovanovic**, respectively. In Volume 2, "Cosmology" is introduced by **Edward Kolb** and "Relativity" is introduced by **Clifford Wills**. The article, "Probing the Structure of the Universe from Quarks to Cosmology," *Physics Today*, December 1986, authored by **Edward Kolb** and **Chris Quigg**, also appears in Volume 2. Volume 3, "Elementary Particles and Symmetry," features **Leon Lederman** on elementary particles and **Christopher Hill** on symmetry. "Elementary Particles and Forces" by **Chris Quigg**, which was published in *Scientific American*, April 1984, is also included in Volume 3.

To accompany the *Resource Book* a set of fifteen TMP videotapes was developed to enhance student learning. Fermilab videotape library footage was identified and videotapes were pro-

duced by **Fred Ullrich** and the **Visual Media Services staff**.

The individuals directly responsible for the success of the TMP project were **Drasko Jovanovic** and six master physics teachers, Walter Schearer, Glenbard North High School; William Conway, Lake Forest High School; Ward Haselhorst, Proviso East High School; JoAnn Johnson, Wheaton North High School; Patrick LaMaster, Illinois Math and Science Academy and James Ruebush, St. Charles High School.

The *Resource Book* and videotapes are available for purchase through the Education Office, WH2NW, MS 777, x3092. TMP was funded through a grant from the National Science Foundation. — *Kris Ciesemier*

Quality corner

"The real strength, and value, of quality engineering involves learning from the past to make a smoother future."
Philip B. Crosby, *Quality is Free*.

The following suggestion was recently received by the QA Office. **Alden Clifford** (BS/FM/Comm./Mail) prepared the response.

Suggestion: There is a common unease with the availability of Lab phones, especially after hours for long distance or paid services (900) calling.

At present the phone owner doesn't get any information regarding the use of the phone on his desk. This can perhaps be arranged since the phone system is computerized.

A better way, though, would be to intercept unauthorized phone use in

the first place. This could be achieved by requiring (for long distance and 900 service only) the user to punch in his Fermilab ID prior to making a pay call. This way the Lab can prohibit illegal phone use, and if it seems worthwhile, e.g. for budget code allocation, it can produce listings. Budget codes for charges could be done via the phone push buttons too.

Response: Thank you for your suggestion regarding administration of long distance or paid services telecommunications for on-site circuits. Please be advised that all (~3,100) 840-xxxx circuits on-site at the Laboratory have been blocked from completing paid services (900 and 976) calls, since February of 1989.

A method for the identification of both FTS and commercial long-distance

telecommunications has already been developed by the Telecommunications group and has been submitted to Business Services Section management.

The FTS identification process is already in use, and Business Services Section management is currently considering the best approach for implementation of the commercial long-distance identification process.

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.

Celebrating twenty years of service



Twenty-year service awards were presented by Rich Orr, Associate Director, at a luncheon held Friday, November 2. Rich pulled double duty at this luncheon because he was also the recipient of a twenty-year service award. The recipients were (row 1, l. to r.) Louis C. Kula, Barb Perington, Mary Brooks, Sherry Hickey, Robert Shovan, Gloria J. Beck, (row 2, l. to r.) Jim Garvey, Ray Yarema, Jordan Finstein, Lee A. Brown, (row 3, l. to r.) Michael James, Ron Haynes, Carl Pallaver, Bill Byrd, (row 4, l. to r.) Rich Orr, Andy Van Ginneken, Ron Cudzewicz, (row 5, l. to r.) Jack V. Smith, Jon A. Blomquist, John B. Korienek, George Wayne Smith, G. T. Mulholland, Glenn Johnson and Danny Douglas.

Holiday entertaining tips

The holiday season is just around the corner and during this time many of us are planning to host and/or attend parties. The following tips were provided by the Fox Valley Chemical Dependency Consortium and, if followed, they can help you and those you care about enjoy a safer, healthier, happier holiday season.

Holiday tips for entertaining

- **Plan your party around a fun event.** Activity keeps people from concentrating on drinking alone, and gives them a reason to put down their glasses.
- **Serve food.** Snacks slow the rate at

which the body absorbs alcohol. Avoid salty foods which stimulate thirst.

- **Set a positive mood.** Introduce new guests to other people in the room. Often, people drink because they are uneasy and don't know anyone else.
- **Keep the cocktail hour short.** If you plan a meal, serve it reasonably soon.
- **Always serve a non-alcoholic drink.** Many people cannot drink alcoholic beverages and others prefer not to.
- **Use a non-carbonated base for punch.** Alcohol is absorbed much faster when combined with a carbonated mixer. Fruit juice or tea is a preferable alternative.

- **Measure drinks.** Keep a jigger at the bar and use it.
- **Delay the amount of time between drinks.** Wait a while between drinks, giving guests time to experience the effects of one drink before offering another. One drink per hour is about all the body can absorb.
- **Never push guests to drink.** Your guests know their limits better than you.
- **An hour and a half before the party ends stop serving alcohol and start serving food.** Top the party off with food. The combination of time and food will help the body absorb any alcohol that has been consumed. (Remember: Coffee will not sober up a drunk. It will just make a wide-awake drunk.)
- **If guests drink too much:** Engage them in conversation or another activity that will slow drinking; offer them food; offer to get the next drink—make it light or non-alcoholic. Think 3-D—Don't (let your guests) Drink and Drive. Ask another guest to drive them home; ask them to stay overnight; take away car keys or call a taxi.

Holiday tips for guests

Abstinence is always acceptable. If you do choose to drink, however, these tips may be helpful:

- **Set limits and stick to them.** Decide how many drinks, if any, you will have during the party. Take pride in staying below your maximum.
- **Eat food.** Food slows the absorption of alcohol into the bloodstream.
- **Stop drinking before you leave.** You need time to get the alcohol out of your system before driving home.
- **Drink slowly.** Sip for enjoyment; don't gulp for effect.
- **Pass on drinks you don't want.** Someone saying, "How about another?" is not a good reason to drink.
- **Be cautious with unfamiliar drinks.** A bizarre potion could throw you for a loop.
- **Don't drink to relax.** Maybe what you really need is sleep.

Applause applause applause

State award winner

Ron Lavoie, one of five youths who participated in the Kane, DuPage, Kendall (KDK) Summer Youth Employment Training Program (SYETP) at Fermilab, was awarded a state prize for outstanding achievement. He was placed at the Lab by **Ellie Rodriguez** (LS/EOO).

Ron, who is 16 years old and about 70% hearing-impaired, worked as a drafter in the Mechanical Support Department last summer through SYETP. "When Ron was at Fermilab, he was constantly working. He showed a lot of maturity dealing with his responsibilities. He behaved as though it wasn't a big deal that he was so responsible," remarked Karen Sweeney, a vocational teacher with Northern Illinois Association. **Jeff Western** (RD/Mech. Dept.) and **Ernie Villegas** (RD/Mech. Dept.), who supervised Ron, and fellow employees

were impressed with Ron's extremely bright outlook, his desire to improve his technique and his professional pride in each of his drawings. Due to Ron's outstanding performance, his employment at the Lab has been continued on a part-time basis during the school year.

The KDK program is part of the Job Training Partnership Act (JTPA) program. Ron won the award through the state's JTPA program and received the award at a ceremony held in Springfield in October.—*Stephanie Novack*

Newly elected president

On Monday, November 19, **Bob Johnson** (BS/Purchasing) was elected president of the Elgin District U46 Board of Education. Bob, who is finishing his second term, has served on the Elgin School Board for 8 years.

An involved citizen

Sam Bandy, Jr. (Security) was recently re-elected to another two-year term to the DeKalb County Board. Sam has served on the Board since 1986.

Ellison wins canoe title

Brian Ellison (RD/Cryo. Dept.) and partner **Ed Paver** won the 1990 C2 Super Aluminum Canoe State Championship. The circuit consisted of nine races, with the championship judged on five of those races. Ellison and Paver registered 50 of a possible 50 points to claim the title.

In the library

The library is trying to restock the book and journal shelves. Please return any library books not currently checked out in your name or any journals which may have found their way into your office.

Employee assistance program

It is estimated that 10 million Americans are affected by clinical depression every year; 25% of all women and 13% of all men suffer at least one episode of serious depression during their lifetimes. Feeling down once in a while is probably nothing to be concerned about, however, depression in its severe form must be addressed by trained professionals.

Depressive illness can have a disturbing effect on our lives and those around us. Frequent and long states of depression can affect one's health, erode a marriage or undermine job performance. It is quite possible for individuals to drift from feelings of sadness or low spirits into a state of depression without realizing it. The symptoms of depression may not be clear and may manifest themselves in some of the following ways: a low mood swing that last indefinitely; lost interest in everything (e.g. job, family, hobbies, etc.);

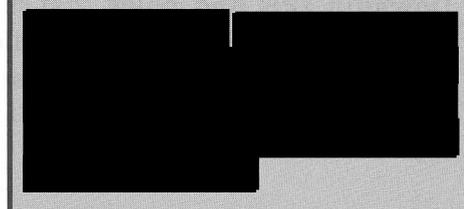
no appetite or excessive appetite; low self-image; unusual nervousness or irritability and frequent crying spells. These signs may be symptomatic of other physical ailments, therefore it is crucial to obtain a proper diagnosis from a trained professional.

Usually, depression is caused by psychological factors, however, there are some forms of depression that are physically based. When physical factors are involved, the depression may be caused by a chemical imbalance in the brain or a change in body chemistry. Sometimes depression is caused by an event or a series of events in one's life. Death of a loved one, divorce or a trauma can sometimes trigger severe depression that may last over an extended period of time. Frequently depressed individuals have unrealistic goals or expectations of themselves, their families or their careers and often label themselves unworthy, a fail-

ure or even a bad person. Depression can be diagnosed and usually treated successfully.

If you recognize the signs of depression in yourself or someone you care about, and the signs/symptoms persist for a number of weeks, seek help. Contact your physician, clergy or EAP counselor. Remember your Employee Assistance Program is here for you, it is confidential and informal – a simple call starts the process. For further information concerning this or other work-related problems, please call the EAP counselor at x3591.

Congratulations to



News from NALREC

Children's Christmas Party

The Children's Christmas Party will be held on Sunday, December 9 from 1:00 to 4:00 p.m. in Ramsey Auditorium. Children of employees, users, visitors and contractors up to eight years of age are invited to attend. Cartoons courtesy of The Film Society will be shown from 1:00 to 2:00 p.m. Highlighting the event will be a visit from Mr. and Mrs. Santa Claus at 2:00 p.m. Refreshments will be served until 4:00 p.m. during which time the children will be scheduled to visit with Santa to share their secret wish lists.

Questions regarding the children's party may be directed to **John Satti** at x3088.

Dinner dance reminder

Fermilab's annual Christmas dinner-dance sponsored by NALREC will be held in the Atrium of Wilson Hall on December 15, 1990 with cocktails beginning at 6:30 p.m. followed by dinner at 7:30 p.m.

The Alan Lake Orchestra will begin playing at 9:00 p.m. and dancing will continue until 12:00 midnight. Those attending are reminded of the Lab's

smoking policy. Smoking will be in the designated area in the South side of the Atrium. Tickets are \$20 per person. For further information and ticket availability, call **Connie Kania** at x3353.

Employee Christmas Party

The Village Barn will be the scene of the NALREC Employee's Christmas Party on Friday, December 21 from 5:15 to 10:00 p.m. Music by Burgundy Road, back by popular demand, will shake the rafters for your dancing and listening pleasure. Food and refreshments will be served.

Clas\$ified ad\$

Miscellaneous:

Baby items, Disney walker, \$15. Walker, \$10. Swing-O-Matic w/ bassinet, \$25. Infant carrier, \$10. Graco stroller, \$35. Call Jack at x4060, E-Mail FNCDC::Schmidt or eves. at 708-741-7513.

Gold color silverware, 144 pcs. set, solid wood case, 12 pcs. to every 1 setting plus 12 pc. serving set, 1968 Thailand, Bangkok, \$400 or best offer. 1968 Canon 35 mm camera with case and flash, Hanimex F2.8 135-55 mm zoom lens, Soligor auto tele converter 3x and 2x, Soligor F3.5 35-105 mm zoom lens with macro, Soligor F1.8 50 mm lens, entire system \$300. Call x 3585 or 708-553-0128.

Men's Raleigh Record 10-speed bicycle, 21" frame, new Shimano 105 derailleurs, \$75. Adjust-a-Porter trunk mount bike carrier, \$25. Roper range hood, with fan, light, connects to outside vent, 30" width, \$30. Kitchen style corner cabinet module with lazy Susan shelves, \$30. Downhill skis and poles, 200 cm, with bindings, \$25. Men's Raichle downhill ski boots, plastic, foam filled, size 10, \$30. Call Al at x4829 days or 708-232-4825 evenings.

Older Westinghouse upright freezer, works well, \$25. (2) 195/70 HR 14" radial snow tires, very low mileage, @\$25. (4) 215/70 14" radial snow tires, very low mileage, all for \$140. Call Jim at x3374.

Sorel boots, size 10, used only a few times, waterproof, insulated to -45, speed lacing, rubberized bottom, \$40. Call x2990 or 708-892-4832.

Motorized vehicles:

1985 Nissan Sentra, red, 4 dr., AC, AM/FM, auto., 64K mi., good cond., \$2,500. Call x2127 days or x4855 evenings.

1989 Lincoln Continental, 17 K mi., in prime cond. with all extras, all power, computer monitoring, airbags driver and front passenger, rose quartz exterior w/tan leather upholstery. Call Elaine at x3581 days or 708-851-7625 after 5 p.m.

Real estate:

House for sale, Naperville Twnshp., 2 yrs. "new", 2 story, 4 bedrm., 2 1/2 baths, fam. rm. w/fire pl., whirlpool in master bath, deck, full basement, oak trim and cabinets, many extras: great location, mins. from I-88 & train, must see to appreciate. Call Steve at x3095 or eves. at 708-369-5575.

Wanted:

Telemark (or any other) cross-country skis, 195 cm, boots 10 1/2 - 11 and poles. Sleeping bag for 0°-20° F. Call Anton at x2136 or 708-690-3414.

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The deadline for the Friday, December 21 *FermiNews* is Wednesday, December 12. Please send your article submissions or ideas to the Publications Office.