

## Calendar

### Wednesday, March 23

**11:00 a.m.** Fermilab ILC R&D Meeting - 1 West

Speaker: T. Raubenheimer, Stanford Linear Accelerator Center

Title: The SLAC ILC Program

**12:00 p.m.** Wellness Works – Brown Bag Seminar - Curia II

Speaker: J. Springsteen, Women's Osteoporosis Program of Kane County Health Department and Women's Health Coalition

Title: Building Better Bones

**2:00 p.m.** Proton Driver General Meeting (NOTE LOCATION) Hornet's Nest

Speaker: R. Ransome, Rutgers University (WH-8X)

Title: Neutrino Scattering

Speaker: A. Moretti, Fermilab

Title: Proton Driver Klystrons

**3:30 p.m.** DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

**4:00 p.m.** Fermilab Colloquium - 1 West

Speaker: B. Tannenbaum, American Association for the Advancement of Science

Title: Dr. Smith Goes to Washington: A Physicist Wanders the Halls of Congress

### Thursday, March 24

**2:00 p.m.** Computing Techniques Seminar - FCC1

Speaker: F. Carminati, CERN

Title: Alice Use of Grid Services - Status and Plans

**2:30 p.m.** Theoretical Physics Seminar - Curia II

Speaker: O. Mena Requejo, Fermilab

Title: Cosmic Neutrino Spectroscopy and

## MARV I and II Offer Boost For Accelerator Division



(From left to right) MARV I and MARV II with their builders, Ray Tomlin, Greg Brown, John Larson and Bob Florian.

Fermilab welcomes its newest workers, MARV I and MARV II, to the Accelerator Division. MARV stands for Mobile Arm Radiation-measuring Vehicle. The original is 12 inches tall and weighs about 8 pounds, while MARV II is roughly 1x 2 x 3 feet and weighs a bit more. Equipped with wireless Internet access so they can be piloted remotely, MARV I and II will be used to conduct visual and radiation surveys of the Booster tunnel while the accelerator is in operation.

MARV I and II are the brainchildren of Proton Source's Ray Tomlin, in response to a request from physicist Peter Kasper, who saw a need for real-time calibration of the Booster's beam loss monitors. Since personnel are not allowed inside the tunnel of an operating accelerator, a robot became the answer. Outside estimates to design and build MARV ran from \$150,000 - \$250,000. Tomlin realized it could be done more cheaply. "The hardest part was convincing people that it

## Fermilab Presents a Free World Year of Physics Concert and Lecture

In celebration of the World Year of Physics, Fermilab presents a special evening to honor Albert Einstein's scientific achievements and his love of violin music. On Saturday, April 30, at 8 p.m., British violinist Jack Liebeck will appear in concert with pianist Inon Barnatan, featuring sonatas by Mozart, Brahms and Prokofiev, as well as Bloch's Nigun.



Jack Liebeck

Prior to the concert, Liebeck will join Physics Professor Brian Foster, Oxford

University, in a lecture with the title "From Einstein to Superstrings" at 7:00 p.m. The lecture will highlight Einstein's appreciation of classical music as well as his scientific legacy. Foster will describe Einstein's groundbreaking contributions to modern physics and will present the latest efforts to explain the structure of the universe in terms of superstring theory. During the lecture, Liebeck will demonstrate superstring concepts on his violin, and he will perform pieces specifically written for the World Year of Physics by composers Emily Hall and Anna Meredith.

Both the lecture and the concert will take place at Fermilab and are free to the public. Reserve your free tickets for seats in the Ramsey Auditorium by calling the Fermilab Arts Series box office at 630-840-ARTS (2787).

the Early Universe

**3:30 p.m. DIRECTOR'S COFFEE**

BREAK - 2nd Flr X-Over

THERE WILL BE NO ACCELERATOR

PHYSICS AND TECHNOLOGY

SEMINAR TODAY

## Weather



Rain/Snow **39°/29°**

[Extended Forecast](#)

[Weather at Fermilab](#)

## Current Security Status

[Secou Level 3](#)

## Wilson Hall Cafe

### Wednesday, March 23

Portabello Harvest Grain Soup

Santa Fe Chicken Quesadilla \$4.75

Garlic Herb Roasted Port \$3.75

Jambalaya \$3.75

Roast Beef on Ciabatta w/ Red Pepper

Mayo \$4.75

Meatlover's Pizza \$2.75

Pesto Shrimp Linguini with Leek &

Tomatoes \$4.75

The Wilson Hall Cafe now accepts Visa, Master Card, Discover and American Express at Cash Register #1.

[Wilson Hall Cafe Menu](#)

[Chez Leon](#) is now open. Call x4512 to make your reservation.

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## Info

could be done for much less," said Tomlin.

Tomlin enlisted the help of engineers Bob Florian, Greg Brown, and John Larson to bring MARV to life. Accelerator Control's Florian wrote the software code used to control MARV's motors and provide data. AC's Brown helped network the robots, while ES&H's Larson did the remote LSM instrumentation. Through a National Science Foundation grant, Columbia University physicist Janet Conrad, provided funding for the project. MARV I, equipped with a radiation detector, cost roughly \$1,400, while MARV II, which has a 40-lb. payload, an articulating arm, and treads instead of wheels, cost about \$5,000. For all the work that went into the year-long project, Tomlin shrugs most of it off: "There wasn't a lot of inventiveness on my part," Tomlin said, "just a lot of shopping."

*-Eric Bland*

## In the News

### **FYI: AIP Bulletin of Science Policy News, March 22, 2005** **New Report on Women in Physics and Astronomy**

The percentage of women holding faculty positions in physics and astronomy is consistent with the percentage of women who earned degrees in those fields in the past, according to a new report by the Statistical Research Center of the American Institute of Physics. "The most provocative thing about this report is the finding that women are not under-represented on physics and astronomy faculties, as most people assume," said Dr. Rachel Ivie, the study's author. Consideration of the "lag time" between degrees and later stages of employment

[read more](#)

## Announcements

### **March PC Manager Meeting**

The March PC Manager Meeting will be on March 23 from 9:00 a.m. to 10:00 a.m. in the Hornets Nest. The main topic will be: "Using Admin Rights Only When Needed - Andy Romero, are you logged in as Admin all the time?" This talk will show you ways to elevate privileges only when you need them!

### **Building Better Bones**

Back by popular demand, Building Better Bones will be offered on March 23 at noon Curia-II. A brief lecture on Osteoporosis will be followed by a free bone scan for any woman attending the lecture. Jody Springsteen, BSN, CRRN covers osteoporosis risk factors, diagnosis and prevention.

### **EPS High Energy Particle Physics Prizes 2005**

The EPS HEPP Board is calling for nominations for the EPS High Energy Particle Physics Prizes in 2005. These prizes include the High Energy and Particle Physics Prize, the Young Physicist Prize, the Gribov Medal and the Outreach Prize. A complete list of prizes and regulations is [available online](#). The deadline for nominations is April 15, 2005. The prizes will be awarded in a ceremony on July 25, 2005 during the International Europhysics Conference on HEPP, Lisbon.

### **International Folk Dancing**

International Folk Dancing has now moved back to Kuhn Barn on the Fermilab site and will meet there on Thursday, March 24. Dancing begins at

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<http://www.fnal.gov/today/>

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is "an important part of the picture," the report points out. "Without considering lag time," it says, "we are left with erroneous conclusions about what the distribution of women faculty members 'should' be without enough information about what the available pool of women is."

[read more](#)

### **FYI: AIP Bulletin of Science Policy News, March 21, 2005 AIP and Several of its Member Societies Endorse \$6 Billion+ Budget for NSF**

The Coalition for National Science Funding is a broadly-based organization advocating for the National Science Foundation. The coalition annually develops a funding recommendation for NSF. The coalition just released a statement endorsed by the American Institute of Physics and four of its Member Societies: American Astronomical Society, American Geophysical Union, American Physical Society and the Optical Society of America.

[read more](#)

7:30 p.m. with teaching earlier in the evening and request dancing later on. Newcomers are welcome and you do not need to come with a partner. Info at 630-584-0825 or 630-840-8194 or [folkdance@fnal.gov](mailto:folkdance@fnal.gov).

### **[Upcoming Activities](#)**