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A U.S. DEPARTMENT OF ENERGY LABORATORY



Political Science 101 2

Photo by Reidar Hahn

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Political Science 101

A Report from the
AAAS Colloquium
on Science and
Technology Policy

by Mike Perricone

Former presidential science adviser Neal Lane thinks the idea of a “balanced portfolio” for research spending is the right track for the science community. But being on the right track isn’t enough, Lane said. In fact, it can be dangerous.

“Will Rogers used to say that even if you’re on the right track, you’ll get run over if you just sit there,” Lane told the recent Colloquium on Science and Technology Policy of the American Association for the Advancement of Science.

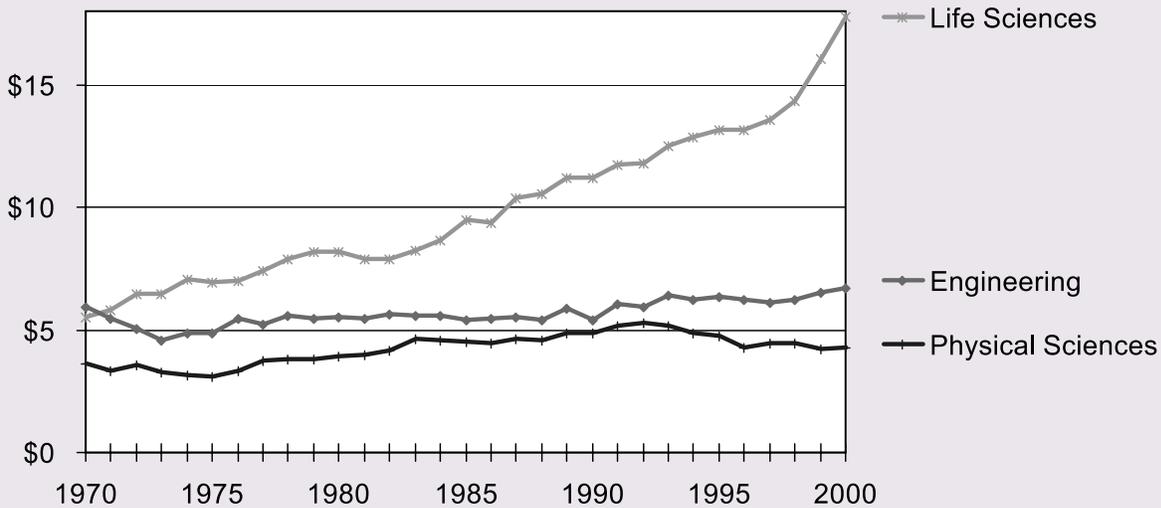
Six months ago, Lane was the director of the Office of Science and Technology Policy and science adviser to the outgoing President Clinton. As Lane spoke, President Bush had yet to name a successor. Lane told listeners that “the debate of six months ago bears no relation to today’s debate.”

Lane’s was one voice of many cautioning that advancement in science will require more than sitting on its budget track record. During the May 3-4 AAAS gathering in Washington, DC to examine science policy in the new Administration, many voices expressed concern about science being run over:

- Rep. Sherwood Boehlert (R-NY), new chairman of the House Science Committee: “The science budgets proposed by the president are too low. Funding for the National Science Foundation and the Department of Energy’s Office of Science are especially disappointing. I’m also very disturbed by the level of research funds for alternative energy sources.”
- Sen. Jeff Bingaman (D-NM), ranking member of the Senate Committee on Energy and Water: “There is no presidential science adviser, and decisions are not being put off until this position is filled. The Administration withdrew new restrictions on arsenic levels in water, saying they were not based on good science. There have been decisions on climate change and energy that should have had input from top science and engineering advisers...The Vice President’s Task Force on Energy will issue a report that would have benefited from the input of a presidential science adviser.”
- John Yochelson, chairman of the Council on Competitiveness: “There is a sense of anxiety, and not just because there’s no director for the Office of Science, no director for the Office of Science and Technology Policy, no presidential science adviser. There’s a real sense of crisis confronting the future of science and technology, and it has people deeply concerned.”

AAAS conference sees long climb toward 'BALANCED PORTFOLIO'

Trends in Federal Research by Discipline, FY 1970-2000
obligations in billions of constant FY 2001 dollars



Source: National Science Foundation, Federal Funds for Research and Development FY 1999, 2000, and 2001, 2001. FY 2000 data are preliminary. Constant-dollar conversions based on OMB's GDP deflators. APRIL '01 © 2001 AAAS

Chart courtesy AAAS

Since 1970, Federal research spending in engineering and the physical sciences has remained nearly flat in constant dollars, while spending in the life sciences has climbed steadily.

- Mary L. Good, chair of the AAAS Board of Directors: "The only area of science funding that is reasonably flat with respect to Gross Domestic Product is the National Institutes of Health. All the others are losing ground. The physical sciences and engineering are down 25 percent in the last 25 years. It's not that NIH is getting too much. The other sciences are getting too little."
- Kei Koizumi, director of the AAAS R&D Budget Program: "The discretionary portion of the budget must be decided every year, despite long-term effects. We as a community must pay attention year after year...We face very tough competition for very scarce resources."

As in years past, the keynote speech of the AAAS gathering had been slated originally for the president's science adviser, who might have offered a perspective with insights into the Administration's science plan and outlook. With the science post vacant, presidential economic adviser Lawrence Lindsey stepped in—firmly.

Lindsey declared that "scientific research lies behind long-term economic success." His subsequent remarks however, seemed to point to an alternative interpretation. He said "growth in the economy produces growth in science and technology and protection for the environment," maintaining that "most scientific development occurs in the private sector and not-for-profits."

Political Science 101

Generally cited as an architect of President George W. Bush's tax policy, Lindsey offered an example of a nine percent return over a century reducing the cost of a development 5,000 times. Thus, Dennis Tito's \$20-million space excursion fare would drop to \$4,000 in a hundred years, as the \$20 light bulb of a century ago now costs 40 cents. Lindsey sketched out the policy implications by explaining that promoting "long-term growth is better than trying to address issues with today's technology," because the future solutions are "cheaper and more efficient."

Applying those principles, Lindsey said the United Nations' Kyoto Protocol on Climate Change "offers no incentives to investment," "imposes restrictions before technology is in place," and "hurts our production and reduces our capacity to find ways to work against global warming." Lindsey's presentation made it clear that the Bush Administration would shun the UN framework for reducing the production of greenhouse gases, which places a major responsibility on the most-industrialized nations.

Lindsey expressed dismay that gasoline prices were "more than \$2 a gallon in downtown Chicago," and stressed the Administration's priority of developing an energy supply policy.

In the audience was Hubert Markl, President of the Max Planck Society in the Federal Republic of Germany, which has signed (but not ratified) the Kyoto Protocol. As Markl addressed the Colloquium during Friday's luncheon, he was having difficulty digesting Lindsey's remarks.

"Many countries supported the Kyoto accord not as a solution, but as a step in the right direction," Markl said. "As a European, I find the message from the United States to be highly disappointing: the world's sole remaining superpower, with four percent of the world's population, using more than 20 percent of the world's energy resources, refusing to be part of an effort to reduce greenhouse gas production."

Markl found it hard to sympathize with U.S. gasoline prices.

"In Europe, we pay \$5 a gallon," he countered. "In Germany, we make some of the most fuel-efficient cars in the world, and we make money selling them. We are also leading the world in preparations for the use of hydrogen fuel cells. We believe we must aim for increased energy efficiency by investing in new technology. We believe we must all work together for a sustainable world."

Markl also noted that, in non-defense and non-NIH categories, Germany invests a higher percentage of its GDP into basic research than does the U.S. There, he touched a central nerve of the conference.

In constant 2001 dollars, U.S. non-defense R&D spending has increased roughly 50 percent since 1976, from about \$30 billion to about \$46 billion projected in 2002. But if NIH spending is subtracted, the R&D curve is essentially flat, starting at around \$24 billion in 1976 and ending up at about the same \$24 billion projected in 2002. Comparing the FY2001 R&D budget with the FY2002 budget request, funding for the National Science Foundation is down about two percent, and funding for the Department of Energy is down four percent.



"Scientists must take the time to understand the world of politics," said House Science Committee Chairman Sherwood Boehlert (R-NY).

Boehlert, an 18-year veteran of the House Science Committee, joked

that this year wouldn't have been his pick to take over the chairmanship. The scientific community, he said, has "talked itself into a funk" over funding. He promised that the numbers would improve as the budget process continued, noting that the Senate had voted to increase funding for DOE, NSF and NASA, while he had just come from a House vote to increase domestic discretionary spending by five percent.

But he also reiterated his own concerns—and the general concern among the attendees—about the impact of flat funding on the future.



Former NSF director and presidential science advisor Neal Lane told the AAAS audience, "Even if you're on the right track, you'll get run over if you just sit there."

"We won't be more efficient by spending less money, and we won't be more efficient by treading water for a couple of years," Boehlert said. "We shouldn't have to deplete one science to spend on another...But competition for federal dollars is huge. We need to reinforce the case for R&D analytically. We need to make specific arguments for specific spending to achieve a balanced research portfolio."

The Department of Energy's Dr. James Decker, who has stepped in several times to serve as acting director of DOE's Office of Science, offered an analysis that could serve as a template. Decker noted that the Office of Science provides:

- 40 percent of federal physics funding;
- 90 percent of high-energy physics and nuclear physics funding;
- support for more than 6,500 graduate students and postdocs;
- support for 4,800 grad students and postdocs at large scientific facilities, such as particle accelerators;
- infrastructure support for 10 DOE laboratories;
- support for about 16,000 researchers every year at its accelerators, synchrotron light sources, neutron sources, large fusion experiments and special purpose facilities.

Decker's figures showed expansion in Office of Science resources for life science researchers, with NIH users at synchrotron light sources growing from 762 in 1998, to 1,262 in 2000. He explained

that DOE had actually established the basis for the human genome project in 1986 with research into human susceptibility to biomediation, specifically from nuclear weapons plants. Looking ahead, he said he hopes for major findings during Run II at Fermilab.

"This is a very exciting time in physics," Decker said, "one of the most exciting I've seen, with research into the Standard Model and divergence from the Standard Model. We've placed a high priority on trying to take advantage of the window of opportunity at Fermilab. With the Large Hadron Collider [at CERN] not coming on line for five or six years, we're investing in accelerator and detector upgrades and in run time to see if the Higgs particle is where people think it is."

How does a case like Decker's become an effective selling point for research? Lane, the politically-oriented scientist, and Boehlert, the scientifically-oriented politician, offered the same answer: scientists must be involved in politics.

Lane urged the scientific community to speak with "one voice," to "speak to the uninformed," and to "speak to people you don't normally speak to." Boehlert's parallel advice was even more politically specific: Don't spend time talking to Washington allies like himself. Contact members in their home districts, following the Tip O'Neill dictum that "all politics is local." Talk to the new members of every Congress. Tell them about jobs, and about the impact of science on the economy.

Boehlert cited a letter he received from a second-grader, saying: "Without science the world would be wacko. There might not even be gravity."

"Washington is already wacko," Boehlert acknowledged. "But there's no faulting this second grader's logic. If we don't understand the world around us, that world ceases to exist. Scientists must take the time to understand the world of politics."

There appears to be no other choice. ☹

On the Web:

<http://www.aaas.org/spp/dspp/rd/colloqu.htm>

THE UNBURNED PRAIRIE

Native species
losing ground
without FIRE
AS DEFENSE



Dead overgrowth on the prairie makes it tough for young plants to squeeze through.

On the Web:

<http://www.fnal.gov/pub/about/campus/ecology/index.html>

by Chad Boutin

Fire can be nature's way of keeping ecological peace. Although it might seem an indiscriminate weapon, fire is the prairie's best defense against invasive plant species, which might otherwise overrun the native prairie ecosystem.

Ecologists have managed the nascent Fermilab prairie with fire for nearly a quarter-century. But a recent moratorium on controlled burns on Department of Energy property has threatened to release invading troops of non-native plants, hindering efforts to return the prairie to its pre-settlement state.

"Fermilab's prairie has not been burned for over a year now," said Fermilab ecologist Rod Walton. "If we don't burn soon, some of these unwanted species could begin to infiltrate."

The tragic fires that swept the western United States last year incinerated thousands of acres at Los Alamos, Hanford, and Idaho National Laboratories. The extensive damage led DOE to impose a nationwide moratorium on controlled burning. However Fermilab prairie experts had hoped that the wetter conditions in Illinois would lead to a waiver on the no-burn policy for Fermilab.

"Los Alamos was a very serious situation," groundskeeper Bob Lootens said. "Over 400 homes burned there. But we have higher humidity and more water here than in the desert canyons. Fermilab has an excellent safety record with controlled burns."

In fact, on April 25 DOE granted a waiver for the spring season, through June 2001. While the waiver was welcome news, it may have come too late for the current season.

"We cannot burn much past mid-April, when ground-nesting birds start arriving," Lootens said. "We will need to get another waiver for the fall, when conditions again permit burning."

Centuries ago, prairie fires were a fact of life. Lightning strikes set the grass ablaze, and native Americans burned the prairie to keep their hunting grounds and transportation routes clear. Things changed when settlers arrived. To protect their property, farm owners would douse the blazes before they spread. By the time ecologists realized that fire was a part of nature's cycle, the prolonged lack of burning had allowed alien plant species to overrun the landscape.

"We have problems with plants like crown vetch, which is a European import," Walton said. "Nothing on this continent eats it. The reason we burn so frequently is to get plants like vetch off the prairie. They are hard to get rid of."

With their deep root systems, native prairie species such as nodding wild onion and shooting star hide up to 70 percent of their biomass beneath the soil's surface. When their stalks burn, they retain enough energy below ground to sprout new leaves.



Photos by Reidar Hahn



Native plant species such as nodding wild onion recover from fires quickly thanks to extensive root systems.

Ecologist Rod Walton shows how much plant matter can accumulate after two seasons without a burn.

“With invasive plants, conversely, most of the biomass is above ground,” Walton said. If you burn them often enough, you exhaust their resources to grow back.”

Without periodic fire, old plant matter can cover the ground like thatch. A thorough blaze clears away this overgrowth, leaving room for the next generation of plants to sprout.

“Fire leaves the soil charred black, which absorbs more heat from the sun,” Walton said. “Seeds are sensitive to soil temperature—it tells them when to sprout. Without a burn, you lose that extra stimulus to their growth.”

The lack of burning can have repercussions up the food chain. Animals as well as plants are adapted to prairie fires, and for local birds of prey, a fire smells like dinner.

“As soon as you start burning, the hawks show up,” Walton explained. “Fire thrusts the field mice out

into the open, and they run around like crazy. The raptors know a good meal when they see one.”

Although fire may sound like the mice’s worst enemy, they reproduce quickly, to compensate for the hawks’ depredations. Walton believes regular burning has contributed to Fermilab’s hawk and owl population, one of the densest in the state.

“The Chicago Academy of Sciences did a bird survey in 1989, and they were amazed at how many owls and red-tailed hawks we have,” Walton said. “All these birds depend on mice for nourishment.”

Because Fermilab’s prairie is still relatively young, it requires more care than it will in the future. Walton and Lootens are hoping for permission to burn again this fall.

“We are trying to reconstruct not just a prairie, but a functioning prairie,” Walton said. “Until the ecosystem is closer to equilibrium, we need to use fire to stay on top of it.”



DASTOW

Brings

Out

Early

Birds



and

Plants

Ideas



Photo by Chris Ader

The author, his brother Tim, friend Alex and Fermilab engineer Maurice Ball.

by Peter Hamilton

Fermilab's woodland area echoed with the calls of birds in the breaking dawn, and water gently lapped the shore of a pond. The site was beautiful without the presence of man. But people soon flooded in on Thursday, April 26, for Daughters and Sons to Work day.

The day began with Fermilab physicist and accomplished ornithologist Peter Kasper, carrying a scope and a pair of binoculars, leading a group of 16 (including me) onto a gravel road inside the Main Ring for the Early Bird Walk. We saw geese, a blue heron attending its nest, tree swallows and redwing blackbirds.

"This is probably the worst time of year for bird watching," Kasper commented. "But one of the great things about Fermilab is that it's one of the best places for bird watching."



We returned to Wilson Hall to join everyone crowding together for a picture-taking session. We stood facing the wind, waiting for the photographers to take all the pictures they needed. Everyone burst into conversation after the final photograph, and we filed into Ramsey Auditorium to hear a talk from Director Michael Witherell.

The festivities began with presentations and tours including the Fire Department tour, a butterfly presentation, and a virtual reality demonstration, which my brother and I attended. Next, the two of us arrived early for the cryogenics show, and we watched host Jerry Zimmerman set up his performance. He made a Pepsi bottle blow up with a sound equivalent to an M-80 firecracker. It made me jump.

At noon, Chris Ader, my stepmom, rushed my brother and me to the tree-planting field, where there was a picnic lunch of hot dogs, potato chips and pop. We ate first, then grabbed three nearby shovels and hiked about 100 yards to where a man in an orange shirt with the Fermilab logo said he was sorry but there were no more trees. So we helped Maurice Ball, a Fermilab engineer, and his friend's son, Alex, finish up with their tree.



We hiked back to the picnic area and jumped into our car to stay on schedule. Chris, an engineer at Fermilab, was one of four presenters for "Go For It!" a panel discussion encouraging young women to pursue careers in science and engineering. Mayling Wong, the first presenter, talked about how she didn't initially go into engineering when she graduated from college, but changed directions because she found it was such an interesting field. Chris had also begun studying another field, biology, when she entered college. But she had always helped her father fix cars, handing him the tools he needed. She followed her interest and earned an engineering degree at Illinois Institute of Technology.

Peter Hamilton, age 14, will start high school this fall.

On the Web: <http://www.fnal.gov/faw/dastow>



DASTOW participants lined up for the annual group portrait outside Wilson Hall.

"It doesn't really matter who you are," she commented during the presentation. "Boy or girl, if that's what you're into, then go for it one hundred percent."

Debbie Harris, a new mother, was comforting her baby girl in her arms as she talked about how happy she is to be in science and what a good place it is. Linda Spentzouris concluded by talking about taking care of important things in life, and the rewards of working at Fermilab even if you're having a bad day.

"Work is one of the best pain relievers," she said. "At work, everything disappears."

After the presentation, we went to see the buffalo. As we drove up, they were not moving a muscle—save one, the tail muscle. Then everyone made a mad dash back to Wilson Hall at three o'clock for the DASTOW posters. We were able to snatch four posters. As we were leaving, we saw a father and his child heading the opposite way. They were too late for posters, but Chris gave her extra poster to them. He thanked her, and we headed out to Chris's office to make our own webpages and create a record of our memorable day. 📄



Photos by Reidar Hahn

Once again, kids and hot dogs make an unbeatable day.

SNOWMASS 2001

by Chris Quigg

Snowmass 2001 will bring together more than 500 physicists in the Rocky Mountains, to look beyond the horizon.

With a decade of discovery before us and ideas for a variety of new accelerators taking shape, it is the perfect moment to take stock of the new possibilities at the highest energies, in experiments of exquisite sensitivity, through metaphorical travel to new theoretical realms, and in experiments that look at the universe through new eyes. In the three weeks (June 30-July 21) of the Summer Study on the Future of Particle Physics, organized by the American Physical Society's Division of Particles and Fields and Division of Physics of Beams, we will make an inclusive survey of the current state of particle physics and articulate our scientific goals for the next two decades. We will discuss the options for the next big machine, to be sure, but also examine the diversity of scale essential to a healthy research community.

Besides physicists from institutions across the country, Snowmass will draw many of our international colleagues as working group convenors and participants. While our first order of business is helping the American community define and articulate its future, that future can't be constructed in isolation. If our field agrees on one idea, it is that worldwide cooperation is essential to create the best and richest physics program for everyone. Among our colleagues from abroad, it will be a particular pleasure to welcome the international physics laboratory directors during the first week of Snowmass, when we will have a focused discussion on the issues of a global accelerator network.

Members of the HEPAP Subpanel on Long-Range Planning will be present for much of Snowmass 2001. Technical sessions and special events, including a town meeting, are constructed to promote mixing among the participants and to foster communication.

The work of Snowmass 2001 is organized around four sets of working groups devoted to accelerators, technologies, physics themes and experimental approaches. The convenors of the working groups are drawn from many institutions; it is their work—and the contributions of the participants—that will define the scientific output of the summer study. For the first time, the summer study will include teach-ins on subjects of importance to the community: how university physicists can participate in accelerator research; the experimental implications of string theory; and nonaccelerator experiments.

The experimental working groups will also include an extra-added attraction: HMOs, or "High-Minded Outsiders." To the experts and advocates of particular approaches we have added senior scientists just to serve as high-minded skeptics. The HMOs will probe and strengthen arguments; and, by the example of their time and effort, lead others to see Snowmass as a forum for engaging in the ideas and aspirations of others.



Photo by Jenny Mullins

Chris Quigg, co-chair of the Snowmass 2001 organizing committee, made an early siting of the Higgs boson—in London. Higgs Boson is the name of a New Wave music group and its key performer. Pointing to the photograph of Boson on the CD cover, Quigg guessed the Higgs mass to be about 11 stone.

On the Web:

<http://www.snowmass2001.org>

The Future of Particle Physics

Snowmass 2001 • June 30 - July 21

Snowmass Village, Colorado



Organized by the Division of Particle Physics
& Division of Physics of Beams of the American Physical Society

Chris Quigg (FNAL/v-chair) Ronald Davidson (PP/SLAC)
Sally Dawson (BNL) Alex Chan (SLAC)
Paul Granda (Stony Brook) Alex Dragoi (Maryland)
David Gross (ITP/UCSD) Gerry Dogan (Cornell)
Joseph Lohman (FNAL) Norbert Helberich (SSU)
Hirosaki Murayama (UC Berkeley) Chao Ji (UCLA)
Rand Ong (UCLA) Thomas Rost (BNL)
Nirupal Roe (LBNL) Ronald Roth (SLAC)
Eldad Schiffman (Northwestern) John Seeman (SLAC)
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www.snowmass2001.org

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Outreach & Education Programs

For further information, contact: Cynthia M. Samsa, Fermilab National Accelerator Laboratory
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The participation of young scientists is indispensable at any meeting devoted to our future, and youth will be present in force throughout the Snowmass organization. The generosity of the DPF and DPB, and of the National Science Foundation, has allowed us to support the participation of many young physicists—advanced graduate students, postdocs, even some undergraduates—who will be making tomorrow's particle physics.

Building—and manifesting—community is an important goal of the summer study, and Snowmass 2001 is enjoying an unprecedented level of institutional support. In addition to the funding agencies (DOE, NSF, and NASA) and Fermilab's parent organization, Universities Research Association, 10 U.S. high-energy physics labs have joined as Snowmass sponsors: Argonne, Berkeley Lab, Brookhaven, Cornell, Fermilab, Jefferson Lab, Lawrence Livermore Lab, Los Alamos, Oak Ridge and SLAC. The Nuclear and Plasma Sciences Society of the IEEE is contributing an exciting program of technology lectures and short courses that will greatly enrich the Snowmass experience.

To paint a complete picture of particle physics and what it can become, we need to draw on all the talents of our community and make common

cause with related fields. String theorists will have an important presence at Snowmass, and the working groups are rich in links to nuclear physics, astrophysics and cosmology.

Thanks to a remarkable response from the whole particle physics community, Snowmass 2001 will take outreach and education to a new level. "Science Weekend," July 7 - 8, will be an extravaganza of activities for people of all ages who are curious about the world they live in. "Science on the Mall" will feature physics vans from several universities, large-scale equipment from the SciTech museum in Aurora, lectures, hands-on experiences for children, a science book fair, and presentations by the Adler Planetarium. The QuarkNet program will hold a weeklong training workshop. Large-scale cosmic-ray detectors will join local Colorado high schools to a North American network for collecting experimental data on cosmic-ray showers. Public lectures, science programs for local day camps, and Spanish-language outreach efforts round out the menu. The outreach activities have drawn funding from many public and private sources.

Bring your passion, energy, creativity, and commitment to Snowmass as we shape a new era for particle physics. The world will be watching! 

SCIENCEWEEKEND

The weekend of July 7-8 has been designated "Science Weekend" by the Snowmass Resort Association. A variety of activities are being planned for the general public. All physicists attending Snowmass 2001 are urged to take part in the array of activities for the general public.

Science on the Mall presented by SciTech Hands-on Museum of Aurora

SciTech brings large-scale interactive exhibits for everyone ages 3 to 99. Children can experience science through play, while adults (including scientists) will discover fresh perspectives.

Educators will be on hand to help everyone get the most from the exhibits during Science Weekend. Children participating in Student Workshops will be given opportunities for guided exploration.



Some of SciTech's planned exhibits:

- Experience a tornado (safely)
- Guess where lightning has struck
- Operate the Doppler radar gun
- Make giant soap bubbles
- Measure (safely) the current through your body
- Take a spin ride with the gyro wheel ...and many more.

Cosmic Ray Balloon Ascent

Watch a reenactment of the discovery of cosmic rays by Victor Hess, in Austria (1911). Physicists in period costume (early 20th and early 21st century) will carry aloft period detector equipment (electroscopes and scintillation counters) and observe cosmic ray rates as a function of altitude. Balloon observations will be relayed to the waiting public at a ground station on the mall, by contemporary wireless technology.



Tabletop Demos

A small-scale science fair on the Snowmass Mall will complement the large-scale exhibits. Tables staffed by physicists and educators will feature materials for hands-on exploration and will encourage people to learn more about general science and topics related to high-energy physics:

- pieces of HEP detectors or accelerator equipment
- colorful posters
- general science demos, like those in student workshops
- cosmic-ray detectors

Physics on Stage

These university groups specialize in bringing dramatic demonstrations of scientific principles and paradoxes to the public. Each event will include multiple demonstrations accessible to a general audience and will be followed by a question and answer period.

Virtual Science Fair

A computer room staffed by physicists and teachers offers the opportunity to explore physics and astronomy online. With online access to the World Wide Web (which was created by particle physicists) visitors can tour the world of high-energy physics and cosmology. Libraries, tutorials for self study, computer games teaching particle physics, fantastic art and photo presentations, museums, universities, world famous laboratories... just a few of the myriad worldwide sites available to visitors.

Astronomy Program

Astronomers and educators from the Adler Planetarium offer daytime and evening explorations of the cosmos. Evening sessions led by astronomers, complete with optical telescopes, will be held at the Snowmass Resort's campfire circle location, a short walk from the Mall but away from its lights. Daytime events will be held in a portable planetarium, to be set up in a Snowmass Mall location. Special activities will also be offered as part of the weekday children's programs.

Lectures and Discussions

Several talks on topics in high-energy physics and other areas of science will be held on the Mall. Typically, a 30-minute presentation will be followed by a 30-minute discussion period. Speakers will be encouraged to bring models or demonstrations and to start a lively interaction with the audience.

Book Fair

Scientists and journalists who write about science will sign (and sell!) their books.

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Our Neighbors, Our Future

Fermilab has an active program of outreach to neighboring communities. A recent meeting in my own neighborhood provided a salutary taste of how it might feel to be on the other end of community outreach.

My neighbors and I share our neighborhood in a town near Fermilab with a small college. Rather than being contained on a central campus, the college buildings are scattered among residential houses on the east side of town. The students are a well-behaved lot, and town and gown coexist peacefully, for the most part. Each day, the students walk through our neighborhood on their way between dorms and classes.

Behind my house runs an alley, a classic Midwest alley, a place for garages, clumps of day lilies and learning to ride a two-wheeler. We use the alley for the usual alley purposes, and the college students use it as a route to classrooms and a student center across the street.

About a month ago, college officials invited my neighbors and me to an evening meeting to discuss an idea for upgrading the alley into a "pedestrian mall." A college vice president welcomed us to a conference room and pointed out the coffee and cookies. A member of the board of trustees explained that they were seeking our input into the college's alley-transformation plans, which he called "very preliminary." He described what the college had in mind for the alley, listed the advantages it would bring to all of us, and asked for our comments on the preliminary plan.

The trouble was, the plan didn't feel preliminary. There was a blueprint, for one thing, with a detailed colored rendering of how

the pedestrian mall would look. It showed a wide brick walkway with benches and landscape plantings. What it didn't show was our existing garages and parking spaces and driveways. The plan conveniently relocated those, deep into our back yards.

The plan didn't show the fifty-year-old shade trees, which would have to be removed.

It didn't show one whole street, which in its current location would bisect the new mall. Closing the street, the trustee explained, was "just an option," but would make the new mall more mall-like.



As we studied the plan, with its implications for our own homes and our own daily lives, we began to ask questions and voice concerns. It soon grew clear from the officials' responses that, while they were willing to consider minor modifications to the plan ("We don't necessarily need benches."), they had already decided on its basic outlines.

When one vociferous neighbor raised a question about the effect of the college's plans on the neighborhood, the trustee replied: "If you don't like it here, why don't you move?"

It didn't feel right. It didn't feel as if the college really wanted our views. It felt as if they expected us to say yes to a decision they had already made.

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In its meeting with us, the college was using a classic model of community interaction known in public relations circles as “decide, announce, defend.” In this model, the opportunity for community involvement comes only after decisions have already been made. Even though an organization may profess to seek community involvement in decision-making, what it really wants (as the community is quick to perceive) is community approval of its decision.

The “decide, announce, defend” model has met the test of time. And failed. Again and again, organizations have learned that, when they make decisions that affect the community, they must involve the community during the decision-making process, not afterward. To do otherwise is to lose the community’s trust.

There is a lesson here for Fermilab. Someday we may want to build a new accelerator, perhaps even an accelerator that extends beyond the borders of our site. Building such an accelerator would not only have a profound effect on the future of our own laboratory and of U.S. high-energy physics, but also on our local community. We believe that most of the effects would be positive, in the form of the economic, cultural and environmental benefits that it would bring. But that’s our opinion. Our neighbors may not agree. They are bound to have concerns about safety and property values and neighborhood disruption. They are bound to want a say in the decision. Wouldn’t you?

How can Fermilab address such issues and build public support for our future? Clearly, the traditional “decide, announce, defend” model is a formula for failure. Involving the community from the beginning—starting now—in planning for a future accelerator will

be challenging, time-consuming and costly; but ultimately it is likely to be the only way to create the level of community trust and support that such a project will require.



Because it does not own all the land along the alley, the college in my town cannot proceed with its mall plan without the agreement of the neighbors. At the moment, prospects for the alley-to-mall makeover look dim. As we think about our own future prospects, let’s promise ourselves at least one thing: No one from Fermilab will ever tell a neighbor, “If you don’t like it here, why don’t you move?”

—Judy Jackson

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CALENDAR

International Film Society Presents:

Being John Malkovich

Friday, June 8, 8 p.m., Wilson Hall's Ramsey Auditorium. Tickets at the door: Adults - \$4, Children (under 12) - \$1, Fermilab students - \$2. Dir: Spike Jonze, USA (1999), 112 minutes.

A puppeteer discovers a door in his office which turns out to be a portal into the mind of actor John Malkovich, only allowing access for 15 minute periods. Things become even more bizarre and humorous when the puppeteer tries to sell trips inside.

Fermilab Arts Series Presents:

Summer Season 2001

Max Morath—The Ragtime Man

Saturday, June 16 / \$12 (\$6 ages 18 and under)

All Fermilab Arts & Lecture Series events take place in Wilson Hall's Ramsey Auditorium. For tickets or further information, please call the box office at 630-840-ARTS weekdays between 9 a.m. and 4 p.m.

Workshops in Balkan and Italian folk dance

Two workshops on dances of the Balkans and dances of Italy are coming up May 24 and June 7, hosted by the Fermilab international folk dancers and held at Kuhn Barn. The workshops will start at 7:30 p.m. with easy dances. Newcomers are invited and encouraged to participate. Requested donation, per workshop, is \$5 for adults and \$2 for students age 18 and under.

Website for Fermilab events: <http://www.fnal.gov/faw/events.html>

May 24: Dennis Boxell will present a variety of dances from Serbia, Macedonia, Greece, and Bulgaria.

June 7: Celest DiPietropaolo and Marie DiCocco present a sampling of dances from various geographic regions of Italy. Both professional musicians, they will accompany their teaching with live music.

For more information on the workshops or the dance groups, please call (630) 584-0825 or (630) 840-8194, or e-mail folkdance@fnal.gov.

May 22

The Friends of Fermilab Annual Meeting features a "QuarkNet, Run II" presentation by high school students from the IL Math and Science Academy and West Chicago High School. Members and potential members welcome! Wilson Hall, Curia II, 7:30pm. Please see: http://www-ed.fnal.gov/ed_ffla.html and <http://quarknet.fnal.gov/>

May 22

NALWO Spring Tea

Hosted by Beth Witherell at her home, Site 29, 10:00 a.m. to 12:00 noon. Please bring a favorite dessert or appetizer from your traditional country, but if you cannot bring a treat, please come anyway! For additional information contact Rose Moore, 630-208-9309, cmoore@fnal.gov or housing office 630-840-3777, housing@fnal.gov.

ONGOING

NALWO

Free English classes in the Users' Center for FNAL guests, visitors and their spouses. The schedule is: Monday and Friday, 9:30 a.m. - 11:00 a.m. Separate classes for both beginners and advanced students.

DANCING

International folk dancing, Thursdays, 7:30-10 p.m., Village Barn, newcomers always welcome. Scottish country dancing, Tuesdays, 7:30 - 10 p.m., Village Barn, newcomers always welcome. For information on either dancing group, call Mady, (630) 584-0825 or Doug, x8194, or email folkdance@fnal.gov.

The Fermilab Barn Dance series, featuring traditional square and contra dances in the Fermilab Village barn, presents barn dances on Sunday, Admission is \$5 for adults, \$2 for age 12-18, and free for under 12 years old. Come with a partner or without; bring the family or not. For more information contact Dave Harding (x2971, harding@fnal.gov) or Lynn Garren (x2061, garren@fnal.gov) or check the webpages at <http://www.fnal.gov/orgs/folkclub/>.

After June 15, the groups will relocate their meetings to Ramsey Auditorium in Wilson Hall.

LUNCH SERVED FROM
11:30 A.M. TO 1 P.M.
\$8/PERSON

DINNER SERVED AT 7 P.M.
\$20/PERSON

Chef Léon MENU

FOR RESERVATIONS, CALL X4512
CAKES FOR SPECIAL OCCASIONS
DIETARY RESTRICTIONS
CONTACT TITA, X3524
[HTTP://WWW.FNAL.GOV/FAW/EVENTS/MENUS.HTML](http://www.fnal.gov/faw/events/menus.html)

LUNCH WEDNESDAY, MAY 23

*Flank Steak with
Honey-Chipotle Glaze
Jicama Slaw
Orange Cardamom Flan*

DINNER THURSDAY, MAY 24

*Roasted Red Pepper Salad
with Goat Cheese and Oranges
Roasted Monkfish
with Garlic, Herbs
and Wild Mushrooms
Vegetable of the Season
Profiteroles with Fruit*

LUNCH WEDNESDAY, MAY 30

*Fish Cakes with
Horseradish Cream
Julienne of Spring Vegetables
Lemon Yogurt Cake with Fruit*

DINNER THURSDAY, MAY 31

*Caribbean Soup
Crabcakes
Vegetable of the Season
Cornmeal Cake*

F E R M I N E W S

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A U.S. DEPARTMENT OF ENERGY LABORATORY

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The deadline for the Friday, June 8, 2001,
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classified ads and story ideas by mail to the
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P.O. Box 500, Batavia, IL 60510,
or by e-mail to ferminews@fnal.gov.
Letters from readers are welcome.
Please include your name and daytime
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CLASSIFIEDS

FOR SALE

■ '96 Ford XLT Club Wagon 15 passenger van. Excellent condition, loaded PS, PB, AT, dual AC, AM/FM cassette stereo. Easily removable seats for cargo. Dual swinging side doors. 67k miles. Includes transferable warranty plan from Ford with 26 months remaining. Asking \$14,000. Call 815-286-3536 or email historyhound@thestix.net.

■ '95 Nissan Altima GXE 4 door sedan, black, 5 spd. manual, dual airbags, power windows & locks, 68k, excellent condition, \$6,995 o.b.o. (blue book value \$7,200). Call Andrei x3859 or home 630-778-8246 or mayorov@fnal.gov.

■ '94 Grand Prix SE V6 2Dr, blue with gray interior, 82k miles, excellent condition. \$5,900 o.b.o. Contact Greg 630-272-5985

■ '90 Ford RV with Cobra custom interior, mirrored doors, mostly leather. 35k gently used miles. Self contained with Onan generator, two A/C, am/fm radio with CD player. Tub/shower combo, new micro, full fridge/freezer combination propane/electric, furnace is propane. Antenna, TV/VCR and cell phone (5 watt for better long distance). Call 630-552-8551 or email mgearson@aol.com.

■ '87 Pontiac 6000 LE, FWD, 4 dr., 109k miles. Asking \$850 o.b.o. Call 3598 or email koteles@fnal.gov.

■ '77 Dodge Charger, Special Edition, 163k good condition, \$1,500 or best offer, 630-553-9464.

■ White 5-piece Yamaha Drum set. Includes Roto-toms, double-bass pedal, cymbals, hardware and many extras. \$500 o.b.o. Mark at 630-978-8669.

■ Free to a good home: 30" by 60" oak office desk. Needs refinishing. Nordic Rider exercise machine, excellent condition. shea@fnal.gov, x4412

■ Retired VW mechanic is selling 40 year inventory of "air cooled" parts to include engines, electrical systems etc. For a list of parts, please send a SASE to Marion, P.O. Box 28, Bristol, IL 60512.

■ African Gray Parrot plus cage. Looking for a good home for a very tame and friendly parrot. He does have a minimal vocabulary. \$200 for both parrot and cage. Please contact Steve Busk at x8406.

LOT FOR SALE

■ Two acres plus, agricultural lot, with building permit, on Immanuel Road, Yorkville, \$80,000, 630-553-9464.

WANTED

■ Used trumpet/cornet. Contact C. Rogers (crogers@fnal.gov) x3824.

■ I am looking for a part-time babysitter for an infant starting in October. I live in Fermilab's village. Please call 630-840-3446.

■ Female to share a house near Fermilab. Call Sheila 393-4472.

FOUND: ONE SWEATER

■ During the recent DASTOW, someone left a sweater at the Fire Station. It is a "Gap" child's size, red with silver trim, with a hood. Contact Chuck Kuhn (kuhn@fnal.gov) at x3428.

EDITOR'S NOTE

"Engineering the Future" (*FERMINews*, Vol. 24, No. 8, May 4, 2001) included a picture identifying four recipients of Employee Recognition Awards. Three of the identifications were correct (Jeff Simms, John Reid, and Jocelyn Monroe). However, award-winner Allan Rowe was incorrectly identified as Yuri Terechkin, who also won an award that day.



MILESTONE

HONORED

By the Department of Energy, the website of the Sloan Digital Sky Survey. Fermilab's Judy Jackson, University of Chicago graduate student Craig Wiegert, SDSS webmaster, and DOE Area Manager Jane Monhart accept the award.



Fermilab Arts Series

Summer Season 2001

Max Morath—The Ragtime Man / Saturday, June 16 / \$12 (\$6 ages 18 and under)

Max Morath presents a musical glance at an earlier America, blending humor, satire, and song with plenty of rocking ragtime piano solos along the way. Morath takes his audiences to the infant years of the 20th Century, when ragtime, America's first Pop Music, bewitched the kids and scandalized their parents. Touring America as "The Ragtime Man", Morath's repertory ranges from piano rags to show tunes, vaudeville novelties to the blues, giving new life to the words, music, and spirit of such musical immortals as Scott Joplin, Irving Berlin, May Irwin, George and Ira Gershwin, and Bert Williams.

All Fermilab Arts & Lecture Series events take place in Wilson Hall's Ramsey Auditorium. For tickets or further information, please call our box office at 630/840-ARTS weekdays between 9 a.m. and 4 p.m.

<http://www.fnal.gov/pub/ferminews/>



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