

Physicists call Fermi 'father to all of us' in CU pr

Physicists put aside talk of lasers or B mesons Oct. 14 for an extraordinary one-day session at Cornell devoted to remembering a towering giant of 20th century physics, Enrico Fermi.

The event brought together people who hadn't seen each other in 30 or 40 years, according to physics Professor Jay Orear, one of the organizers of the event, who said, "There never was anything like this.

"Fermi was like a father to all of us," he added, and the gathering in Schwartz Auditorium indeed seemed to resemble more the reunion of an extended family than a professional meeting.

Orear, a doctoral student of Fermi's, doubted that any gathering had brought together so many of Fermi's associates from his days at Los Alamos and the University of Chicago since his death in 1954 at age 53. No meeting he could recall had focused so exclusively on Fermi, or for that matter, any other physicist.

Fermi is admired for his scientific accomplishments — including the first sustained nuclear fission reaction, achieved at the University of Chicago in 1942 — but it was remembrances of his personal qualities and quirks, as well as stories of a great scientist, that dominated Monday's discussion.

"He was a very fertile person, never mean or competitive. His door was always open to everybody," Orear said.

"You could ask any question," added Nobel laureate Hans Bethe, the John Wendell Anderson Professor Emeritus of Physics, "and he would probably have the answer." For his remarkable ability to provide seemingly infallible answers to scientific questions, his associates in Italy dur-

ing the early 1930s, a group that included Bethe, dubbed him "the pope." Fermi's strength, Bethe explained, lay in his ability to reason from physical principles straight to the heart of a problem.

Images of the day included Fermi, wearing a dirty lab coat, running at full tilt down a hall in Italy to take a radioactive sample to a detector; swimming in Lake Michigan with a dog paddle stroke that carried him farther and faster than a varsity swimmer; playing charades at Los Alamos; mowing a lawn in home movies; carefully indexing an enormous collection of scientific notebooks to make up for a claimed poor memory; riding a beat-up bike to work in Chicago, his lunch poking through a pocket in his parka; and trying to teach his 10-year-old daughter algebra in two hours.

Fermi was "the complete physicist," according to Val Telegdi, a former University of Chicago professor who has been commissioned by that university to write a paper on Fermi for its centennial celebration. "Nobody in the history of physics possessed greater versatility than he. Fermi was completely devoted to physics, and his whole life centered around it.

"He was an incredibly clear thinker, but not an exceptionally quick one," Telegdi added. Present at the explosion of the first atomic bomb at Trinity, Fermi dropped a few pieces of paper and measured how far the bomb blast blew the paper pieces to determine roughly the strength of the explosion. This absurdly simple method gave a result that agreed well with far more sophisticated calculations.

"Fermi liked to pass as an ordinary man — simply a good artisan who happened to specialize in physics," ac-

ording to Telegdi. He disliked most never disparaged others (in irritation over all the press attention maintained a frugal lifestyle).

His favorite books were the *C* series, according to his daughter, also recalled some more painful r

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Professor Gold's controversial oil theory gets headlines after discovery in Sweden

Professor Emeritus Thomas Gold's controversial theory that oil and gas do not come from decayed vegetation and other living matter compressed under Earth's sediments millions of years ago surfaced again last week in headlines worldwide.

A front page story in the Oct. 9 issue of London's Daily Telegraph declared: "Oil has been found in granite — the last place the oil industry would expect to find it — giving the strongest evidence to date that vast non-fossil fuel reserves may exist deep in the Earth."

An Oct. 8 Reuters news service story out of Stockholm stated that "a Swedish-American drilling project . . . said it had found proof of oil in the granite far beneath a Swedish fir forest where conventional wisdom says there should be none.

"Project manager Jack Kenney said drilling had reached a depth of 2,800 meters when between 10 and 100 liters of oil flowed to the surface with the water used as

drilling fluid," the news agency reported.

"This is an incontrovertible demonstration of abiogenic [non-fossil] oil and gas in crystalline rock. There is no way fossils could get down at this depth into this rock," Kenney told Reuters.

Dala Djuggas Produktions AB hopes to find commercially viable reserves of non-fossil natural gas below the Siljan Ring, a meteoric crater northwest of Stockholm, an area larger than the greatest oil field in Kuwait, Gold said.

The drilling project is the second such effort in Sweden based on Gold's theory.

Speaking from his home in Ithaca, Gold said the find vindicated his theory that has infuriated many geologists for more than a decade.

Gold says oil and gas have developed from hydrocarbons locked in the Earth at the time of its creation. The transformation of the hydrocarbons into oil and gases depends on the modern knowledge that the

Earth formed from cold material, not hot, as was thought earlier.

Gold says that the initially cold Earth heated up by gravitational compression and internal radioactivity, and this drove out the materials that laid down deposits of oil and gas at shallower levels.

He says the biological remnants found in oil come from bacteria that feed on the oil and that have apparently migrated throughout the Earth's vast reserves of oil. It is these same oil-devouring bacteria that have been proposed as the ultimate solution to cleaning up oil spills, he said.

If Gold's ideas prove to be right, they could be a boon to the environment in a number of ways, particularly with extensive availability of relatively clean-burning natural gas. But they also could play havoc with the world economy and with energy businesses and interests due to depressed prices for fossil fuels.

—Martin B. Stiles

Rhodes issues statement on sexual harassment

The following statement was issued by President Frank H.T. Rhodes on Wednesday, Oct. 16.

At a time when the issue of sexual harassment has commanded the attention of the nation as never before, I think it is appropriate that we reaffirm our commitment at Cornell to address the issue at every level with seriousness, with a concern and compassion for the anguish experienced by its

assessing for seeking help or filing complaints.

Cornell has sanctions in place at all levels against those who harass others in the academic or work environment, and protection for those unfairly accused of harassment.

Ours is a multiaccess system, with sexual harassment counselors and advisers in the colleges, residential life units, Office of Human Resources, Office of the Ombuds-

Rhodes continued from page 1

• On a multicultural environment: More than 12.5 percent of the new freshman class comes from underrepresented groups. The total student population represents every state and 100 countries. A broadened curriculum in the College of Arts and Sciences; a new American Indian House, one-half of whose residents are non-Indians; and an experimental Multicultural Living and Learning Center on West Campus represent commitment to support as well as recruit a diverse population.

With resurgent nationalism and ethnic strife in Europe, America sets a singular

New Nobel taught at

This year's winner of physics, Pierre-Gilles White Professor-at-I 1989-90 was the Ph.D. Lecturer.

De Gennes won discovering similar molecules in many including superconducting crystals used in recording to an Ass Some of the systems are so complicated thought they could be called terms.

Cornell Physics Professor gaokar said that de prize for an accumulative strength is that "he lot simpler than they" "Everything he's by doing neat and s gaokar added.

De Gennes, 58, of in Paris, has stimulated retical and experim mathematical descrip long, chainlike molecules the Royal Swedish said in awarding the though his work has been motivated w plications, such as th of a super glue strong assembling airplanes.

The Nobel Prizes 10 in Oslo and Stock

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