



Francesco Iachello

introduced models of molecules that were based, like those used to describe nuclei, on group theory.

Iachello received one doctorate in nuclear engineering from the Turin Polytechnic in 1964 and a second doctorate in physics from MIT in 1969. He has been a professor at Yale since 1978.

IN BRIEF

Michael Knotek, formerly chairman of the National Synchrotron Light Source at Brookhaven National Laboratory in Upton, New York, has become senior science director for Batelle Memorial Institute's Pacific Northwest division in Richland, Washington.

Shobo Bhattacharya, formerly a senior staff physicist at Exxon's Corporate Research Laboratories, has become a senior research scientist in the physical sciences research division of the NEC Research Institute in Princeton, New Jersey.

This month **Gordon P. Eaton** will leave his position as president of Iowa State University to become the new director of Columbia University's Lamont-Doherty Geological Observatory in Palisades, New York. Eaton is a geologist by training who has been in university administration for about nine years.

Herbert Goldstein, a professor of applied physics and nuclear engineering at Columbia University, has been chosen to receive the Arthur Holly Compton Award of the American Nuclear Society. According to the award citation, Goldstein is recognized for "his pioneering research

and teaching in radiation transport and shielding, and for his selfless effort to promote public understanding of nuclear power."

OBITUARIES

Emilio Segrè

Emilio Gino Segrè, Nobel laureate and a pioneering figure in nuclear physics, died suddenly of a heart attack on 22 April 1989, at the age of 84. Segrè became a research associate at Lawrence Berkeley Laboratory (then the University of California Radiation Laboratory) in 1938, and joined the physics department of the University of California, Berkeley, two years later. He and I shared the Nobel Prize in Physics in 1959 for the discovery of the antiproton.

Segrè was a polished writer, so I shall take the liberty of frequently quoting his own description of his life and work in his Faculty Research Lecture, "From Atoms to Antiprotons," given in March 1960.

Emilio was born into an influential and affluent Italian family that had strong intellectual traditions. His father was an industrialist—the owner of a paper mill—and his mother was the daughter of a well-known Florentine architect. He recalled:

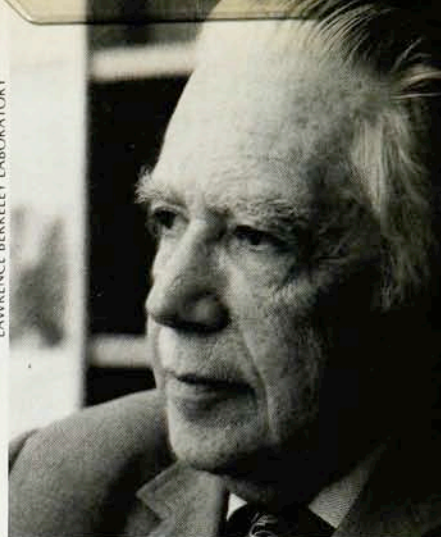
I passed my youth in Tivoli, where I received extraordinarily good instruction in the elementary grades....

At the University [in Rome] I came immediately into contact with scientists and mathematicians of outstanding merit, such as Castelnuovo, Severi, Levi-Civita and Corbino. However, I studied engineering and not physics.... It was only in my fourth university year that I became acquainted with first [Franco] Rasetti and then with [Enrico] Fermi....

Fermi had just arrived in Rome as a young professor.... He gave us, that is, [Edoardo] Amaldi, Rasetti, [Ettore] Majorana and myself [his first students], and later [Giulio] Racah, [Gian Carlo] Wick and others, private and informal lessons, out of which we learned physics....

[In those lessons] I was deeply influenced in my scientific taste of what is important in physics and in my conception of the indissoluble connection between theory and experiment.

Although my own work has been mostly experimental, it was motivated much more by theory



Emilio Segrè

than by a desire to develop a technique or an instrument.

Experimental complication to me is more an unavoidable evil to be tolerated in order to obtain the results than a stimulating challenge, as it is to many physicists. The simple experiment has been always the one I admired most.

In 1928 Segrè completed his doctoral thesis at the University of Rome, on the anomalous dispersion of lithium vapor. Although he worked with Fermi on a number of atomic spectroscopy problems, in 1929 he made his first original discovery, on the connection of forbidden lines with quadrupole radiation using the Zeeman effect. This was the experiment that convinced him he could do something significant in physics by himself.

To bring new experimental techniques to Rome, members of the Fermi group had to learn them by working with other research teams:

I went to Amsterdam, to [Pieter] Zeeman's laboratory to study forbidden spectral lines.... I later worked on molecular beams in the Otto Stern laboratory in Hamburg....

Around 1930 Fermi recognized... that one had to turn to the nucleus for new and interesting problems and riddles... and just in the middle of this work, lightning struck in the form of the discovery of artificial radioactivity by [Irène] Curie and [Frédéric] Joliot.... Fermi immediately saw the advantages of using neutrons instead of alpha particles as projectiles and started experimenting in that direction.... When Fermi obtained his first success he generously asked us to help him; and we dropped everything else, ... divided our work and took responsibility for different parts of it....