THE NINTH TYKOCINER MEMORIAL LECTURE

A BRIEF HISTORY OF THE FIRST 15 BILLION YEARS

NOBEL LAUREATE LEON MAX LEDERMAN
Frank E. Sulzberger Professor of Physics
University of Chicago
and
Director Emeritus
Fermi National Accelerator Laboratory

Foellinger Auditorium
Monday, February 26, 1990
8:00 p.m.
THE NINTH TYKOCINER MEMORIAL LECTURE

Welcome
Professor Timothy N. Trick
Head of the Department of Electrical and Computer Engineering

Introduction of the Speaker
Professor Edwin L. Goldwasser
Acting Director of Computer-based Education Research Laboratory and Emeritus Professor of Physics

Speaker
Professor Leon M. Lederman
'A Brief History of the First 15 Billion Years'

The first Tykociner Memorial Lecture, presented in 1972, commemorated the fiftieth anniversary of the first public demonstration of sound-on-film by Professor J. T. Tykociner. The series is sponsored by the Department of Electrical and Computer Engineering of the University of Illinois at Urbana-Champaign.

(continued on panel 5)
LEDERMAN (continued)

Guggenheim, Ford Foundation, and A.A.A.S. Fellow. He is a member of the National Academy of Science and received the President’s National Medal of Science in 1965.

At a press conference following the announcement, on October 19, 1988, that he had received the Nobel Prize, Professor Lederman told reporters, ‘‘There’s something spooky about the Nobel—it has its own special aura because of earlier winners, like Einstein and Enrico Fermi, whom we venerate. . . . But, to me, the most encouraging aspect of an award such as this is that young people will hear about it and be inspired to carry on this most basic type of research.’’ In an effort to combat what he has called the ‘‘frightening’’ level of science illiteracy in the United States, Dr. Lederman initiated at Fermi Laboratory fifteen educational programs, including a popular Saturday morning physics class, for teachers and high school students. He was also instrumental in the establishment of the Illinois Science and Math Academy, a free public boarding school for gifted youngsters, in Aurora, Illinois. Professor Lederman turned down an offer of another five-year term as director of Fermi Laboratory to return to teaching, at the University of Chicago in March 1989. He hopes to establish another academy to train Chicago public school teachers how to teach science and math.

Dr. Lederman will receive the ‘‘Medal of Lincoln’’ this year for contributions to the betterment of Illinois. Last year, he became the state’s first science advisor.

TYKOCINER (continued)

invention of sound-on-film, successfully demonstrated at the University on June 9, 1922.

Professor Tykociner continued pioneering work in the field of antenna models, high-frequency measurements, dielectrics, piezoelectricity, photoelectric cells and microwaves. His goals were to improve communications as a tool for education and to improve understanding among people. His last score of years was devoted with intensity to a study of the Science of Research which he named ‘‘Zetetics,’’ encompassing the humanities, arts and social sciences as well as the physical sciences.

Professor Tykociner bequeathed his estate to the University for the continuation of this endeavor. His dream of integrating all research and knowledge has led to the establishment of this lecture series, made possible by the Tykociner Memorial Fund.

He retired from the University in 1948, but remained a very active Professor Emeritus until his death in 1969.
A limited number of copies of previous Tykociner lectures are available. Please check those you wish to receive, and send requests to Mrs. Jeri Borchers, Room 155 EL, Department of Electrical and Computer Engineering, University of Illinois, 1406 W. Green St., Urbana, IL 61801.

1. □ Dennis Gabor  
   “The Scientist in the New Society”

2. □ Sir Isaiah Berlin  
   “The Divorce Between the Sciences and the Humanities”

3. □ Leon N. Cooper  
   “Science and Human Experience”

4. * Sol Spiegelman  
   “The ‘I’ and ‘We’ of Art and Science”

5. □ Freeman J. Dyson  
   “Quick is Beautiful”

6. □ Sir Zelman Cowen  
   “Contemporary Tasks for the Law”

7. □ Richard Rorty  
   “The Contingency of Selfhood”

8. □ Herbert A. Simon  
   “Progress in the Science of Research”

9. □ Leon M. Lederman  
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