

Robert M. Fano

Born November 11, 1917, Torino, Italy; leader of Project MAC, which established interactive computing through time-sharing as a common part of modern computer systems.



Education: SB, electrical engineering, MIT, 1941; ScD, electrical engineering, MIT, 1947.

Professional Experience: student engineer, General Motors Corp., 1941; MIT: Radiation Laboratory, 1944-1946, Research Laboratory of Electronics, 1946-1963, research associate, Department of Electrical Engineering, 1946-1947, assistant professor, Department of Electrical Engineering, 1947-1951, associate professor, Department of Electrical Engineering, 1951-1956, group leader, Radar Techniques Group, Lincoln Laboratory, 1950-1953, professor,

Department of Electrical Engineering, 1956-1984, director, Project MAC (now Laboratory for Computer Science), 1963-1968, associate head, Department of Electrical Engineering and Computer Science, 1971-1974, Ford Professor of Engineering, Department of Electrical Engineering and Computer Science, 1962-1984, professor emeritus, Department of Electrical Engineering, 1984-present; visiting scientist, IBM Zurich Research Laboratory, 1974-1975; member, board of trustees, Bentley College, Waltham, Mass., 1973-present.

Honors and Awards: member, National Academy of Sciences; member, National Academy of Engineering; fellow, American Academy of Arts and Sciences; fellow, IEEE; Shannon Lecturer, IEEE Information Theory Group, 1976; IEEE Education Medal, 1977; International Institute of Communications “City of Columbus, Ohio” Prize, 1969; International Institute of Communications Columbian Gold Medal of the city of Genova, Italy, 1986.

Robert Fano did most of his undergraduate work at the School of Engineering of Torino before moving to the US in 1939. He received the bachelor of science degree in 1941 and the doctor of science degree in 1947, both in electrical engineering, from MIT. He has been a member of the MIT staff since 1941 and a member of its faculty since 1947.

During World War II, Professor Fano was on the staff of the MIT Radiation Laboratory, working on microwave components and filters. He was also group leader of the Radar Techniques Group of Lincoln Laboratory from 1950 to 1953. He has worked and published at various times in the fields of network theory, microwaves, electromagnetism, information theory, computers, and engineering education. He was author of the book entitled *Transmission of Information* and coauthor of *Electromagnetic Fields, Energy and Forces* and *Electromagnetic Energy Transmission and Radiation*. He was also coauthor of Volume 9 of the Radiation Laboratory Series.

Professor Fano, was Ford Professor of Engineering, in the Department of Electrical Engineering and Computer Science at MIT, until his retirement in June 1984. He organized MIT's Project MAC (now Laboratory for Computer Science) in 1963 and was its director until September 1968. He also served as associate head of the Department of Electrical Engineering and Computer Science from 1971 to 1974.

Professor Fano, is a member of the National Academy of Sciences and of the National Academy of Engineering, and a fellow of the American Academy of Arts and Sciences, and of the Institute of Electrical and Electronic Engineers (IEEE). He was the 1976 Shannon Lecturer of the IEEE Information Theory Group, and the recipient of the 1977 Education Medal of the IEEE. He was also the recipient of the 1969 prize "City of Columbus, Ohio" and of the 1986 Columbian Gold Medal of the city of Genova, Italy, both awarded by the International Institute of Communications. He has served on the board of trustees of Bentley College, Waltham, Mass., since 1973, and is presently (1991) a member of its Executive Committee.

QUOTATION

In discussing his background of electrical engineering during the 1988 *Annals of the History of Computing* interviews associated with the 25th anniversary of the MIT Laboratory of Computer Science, he said of himself in 1963 that he "learned enough about computers to become the leader of Project MAC."

BIBLIOGRAPHY

Biographical

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Significant Publications

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Fano, R. M., and Fernando J. Corbató, "The Time-Sharing of Computers," *Scientific American*, Vol. 215, No. 3, Sept. 1966, pp. 128-140.

Fano, R. M., "The Computer Utility and the Community," 1967 *IEEE, Int'l Conv. Record*, Part 12, 1967, pp. 30-34.

Fano, Robert M., "Proposal for a Research and Development Program on Computer Systems," proposal submitted to the Advanced Projects Agency, MIT, Cambridge, Mass., 1963.

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UPDATES

Portrait added (MRW, 2012)