
ROBERT EUGENE MARSHAK



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ROBERT EUGENE MARSHAK was born in New York City in 1916 and graduated from Columbia University in 1936. His major fields were physics and philosophy. He then worked under the supervision of Professor Hans Bethe at Cornell University, and was awarded the Ph.D. degree in 1939 for his thesis on White Dwarfs. He joined the University of Rochester faculty in 1939 and stayed there until 1970. He married Ruth Gup in 1943. He then became president of the City College of New York from 1970 to 1979. From 1979 until his untimely death, Marshak was involved in the study of the newly discovered mesons. He was responsible for our understanding of the pi-meson, and wrote the first definitive book on meson physics.

Throughout his research career, Marshak concerned himself with the conceptual framework of elementary particle physics, but at the same time kept himself fully informed in detail about experimental results. His achievements are too many to list here: a collection of essays, *A Gift of Prophecy* (Singapore: World Scientific, 1994) gives a comprehensive account with a list of his positions and more details about his academic career.

I met Professor Marshak in 1953 in Mumbai when he was a visiting scientist at the Tata Institute of Fundamental Research, where he gave a series of lectures on meson-nucleon scattering. Since I was compiling the lecture notes, I got to talk to him at length. He made me feel that I understood physics and suggested that I consider graduate study at Rochester. Once I got there, he and I worked on several physics problems, including the discovery of the universal weak interactions. His method was to talk to me and to other graduate students as though we were colleagues and experts in the field. He knew what he was doing; many of us discovered that we were experts. Of course he continued to think of several of us who had already become professors as his "boys," and at each opportunity suggested problems on which we could collaborate. He had an uncanny ability to recognize the essential problems at each juncture, so much so that John Polkinghorne refers to him as a prophetic scientist.

Marshak was involved in generating and fostering international cooperation. He got the first group of leading Soviet scientists to participate in the Sixth International Conference on High Energy Physics in Rochester in 1956.

Though most of his professional life was devoted to theoretical physics, his knowledge and love of philosophy did not diminish. In 1965, André Mercier from the University of Bern was visiting me. He held chairs in both physics and philosophy at that time, and wrote mostly on philosophy. When Marshak met Mercier, they were able to

carry on a serious discussion on issues in philosophy. During his travels in India he met several people with whom he discussed philosophy in addition to those with whom he discussed physics.

He continued his research work until the end. He had just completed the manuscript of a new book, *Conceptual Foundations of Modern Particle Physics*, and mailed it to the publisher the day before he left for Cancun on that fateful vacation. He was dead within twenty-four hours of that! Ruth survived him, but only for a few years. His academic genes continue to contribute to science. His daughter Ann Marshak Rothschild is a biochemist and his son Steven Marshak is a geologist.

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