

Obituary

Obituary for Prof. Dr. Steven Weinberg

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With deep sadness, we announce that on 23 July 2021 our Editorial Board Member Steven Weinberg passed away.

Steven Weinberg's research on elementary particles and physical cosmology was honored with numerous prizes and awards, including, in 1979, the Nobel Prize in Physics, and in 1991, the National Medal of Science. In 2004 he received the Benjamin Franklin Medal from the American Philosophical Society, with a citation that said he was considered by many to be the preeminent theoretical physicist alive in the world today. "His ideas have inspired and continue to inspire scientists around the world. He carried out research in a variety of topics of particle physics, such as the high energy behavior of quantum field theory, symmetry breaking, unification of interactions, pion scattering, infrared photons and quantum gravity."

Steven Weinberg was born in 1933 in New York City. He received his bachelor's degree from Cornell University in 1954 and then went to the Niels Bohr Institute in Copenhagen where he started his graduate studies and research. After one year, Steven Weinberg moved to Princeton University where he earned his Ph.D. in physics in 1957, completing his dissertation, titled *The Role of Strong Interactions in Decay Processes*, under the supervision of Sam Treiman. After completing his Ph.D., he worked as a postdoctoral researcher at Columbia University (1957–1959) and the University of California, Berkeley (1959), and then he was promoted to faculty at Berkeley (1960–1966). In 1966, Steven Weinberg left Berkeley and accepted a lecturer position at Harvard. In 1967 he was a visiting professor at MIT. In 1982 Weinberg moved to the University of Texas at Austin as the Jack S. Josey-Welch Foundation Regents Chair in Science and started a theoretical physics group at the university that now has eight full professors and is one of the leading research groups in the field in the US.

He has written over three hundred scientific articles (Figure 1), and six treatises on general relativity, quantum field theory, cosmology, and quantum mechanics. Our generation of physicists, including myself, studied gravity in his 1972 book *Gravitation and Cosmology*. Among his books for general readers, are *Dreams of a Final Theory* and *The First Three Minutes*, and two collections of published essays, *Facing Up: Science and its Cultural Adversaries*, and *Lake Views: This World and the Universe*. Many of these essays first appeared in *The New York Review of Books*. For this writing, he has received the Lewis Thomas Award for the Scientist as Poet and other awards. His latest book, *To Explain the World: The Discovery of Modern Science*, was published in 2015.

Steven Weinberg is frequently among the top scientists with the highest research effect indices, such as the h-index and the creativity index. The theoretical physicist Peter Woit called Weinberg, arguably the dominant figure in theoretical particle physics during its period of great success from the late 1960s to the early 1980s, referring to his contribution to electroweak unification which is, to this day, at the center of the Standard Model, our best understanding of fundamental physics.



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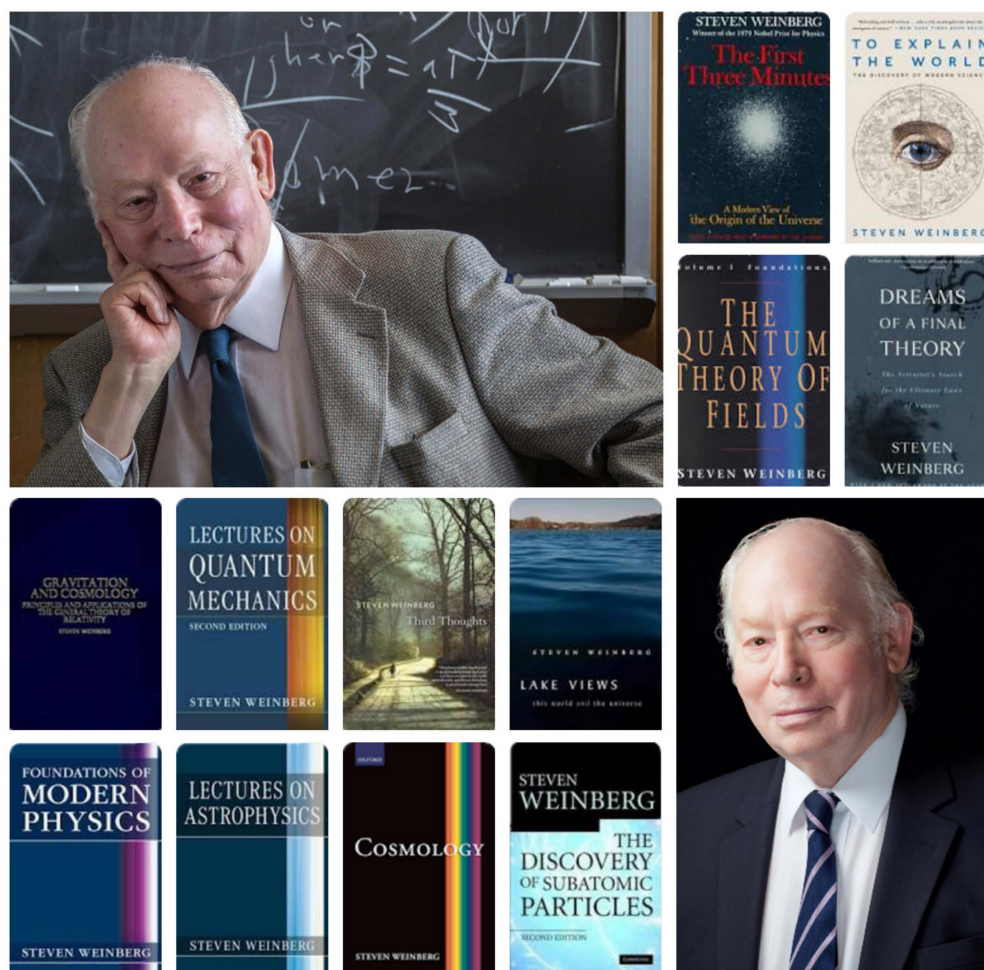


Figure 1. Prof. Dr. Steven Weinberg and some of his books.

Steven Weinberg was Editorial Board Member of *Symmetry*. As well as Advisory Board Member, he greatly supported our periodical conference for *Symmetry*. We are opening a memorial Special Issue to commemorate Steven Weinberg. He was an exceptional scientist. I remember well one case. Some years ago, he wrote a cosmology paper. I sent him an email pointing out an error in the original version of his manuscript which was based on my earlier paper. He immediately checked it and found that, indeed, it was not correct. Then he acknowledged our conversations in the published version of his work. As a great scientist, he was not afraid to say that he made an error.

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