

Curriculum Vitae Professor Dr Gerald Holton

Name: Gerald Holton
Date of birth: 23 May 1922

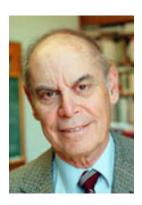


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Research Priorities: high-pressure physics, history of science, philosophy of science, science and society, biographies of scientists, Albert Einstein

Gerald Holton is an American physicist and historian of science. He is considered one of the leading exponents of high-pressure physics and the history and philosophy of science. He has published seminal contributions to the history of science in the 19th and 20th centuries.

Academic and Professional Career

Mallinckrodt Professor of Physics, Professor of History of Science, Emeritus, Harvard University, Cambridge, USA

Visiting Professor: Massachusetts Institute of Technology (MIT), Cambridge, USA; Institute for Advanced Study at Princeton (IAS), USA; New York University, New York City, USA; Leningrad University, Russia; Imperial College London, UK; Sapienza University of Rome, Italy; National Centre for Scientific Research (CNRS), Paris, France; Visiting Scholar, China and Japan

1952 - 1982	Head, High-Pressure Laboratory, Harvard University, Cambridge, USA
1948 - 1952	Lecturer, Department of Physics, Harvard University, Cambridge, USA
1947	Promotion in physics, Harvard University, Cambridge, USA
1944 - 1947	Study of physics, Harvard University, Cambridge, USA
1942	Master of Arts, Wesleyan University, Middletown, USA
1941	Bachelor of Arts, Wesleyan University, Middletown, USA
1940	Study of physics, Wesleyan University, Middletown, USA

Functions in Scientific Societies and Committees

2003	National Associate, The National Academies (NASEM), USA
2003	Member, Committee on Facilitating Interdisciplinary Research, NASEM, USA
1997 - 2001	Member, Committee on Public Understanding of Science (OPUS), American Association for the Advancement of Science (AAAS), USA
1997 - 2000	Member, Advisory Committee on Science and Mathematics, Massachusetts Board of Education, Malden, USA
1997 - 2000	Member, Board of Trustees, German-American Academic Council (GAAC), USA
1989 - 1993	Trustee, National Humanities Center (NHC), USA
1989 - 1991	Member, Committee on the Conduct of Science, NASEM, USA
1988	Chairperson, International Union on History and Philosophy of Science (IUHPST)
1986 - 1988	Chairperson, Advisory Committee on Directorate for Science and Engineering Education, National Science Foundation (NFS), USA
1985 - 1993	Member, Advisory Committee on Directorate for Science and Engineering Education, NFS, USA
1984 - 1987	Member, Committee on Indicators of Precollege Science Education, National Research Council (NRC), USA
1983 - 1984	President, History of Science Society (HSS), USA
1982 - 1988	Member, IUHPST
1981 - 1988	Vice President, International Academy of the History of Sciences, Paris, France
1981 - 1983	Co-Autor, "A Nation At Risk"-Report, President Ronald Reagan's National Commission on Excellence in Education, USA
1980 - 1985	Member, Selection Board, Albert Einstein Peace Prize, Albert Einstein Peace Prize Foundation, Chicago, USA
1979 - 1995	Member, Council of Scholars, Library of Congress, Washington D.C., USA
1977 - 1980	Member, US Committee on Science in UNESCO, USA
1976	Member, Center for Advanced Study in the Social Sciences, Princeton, USA
1975 - 1980	Member, U. S. Department of State's National Commission for UNESCO, USA
1975 - 1989	Trustee, Wesleyan University, Middletown, USA
1973 - 1978	Member, Advisory Committee on Ethical and Values Impact of Science and Technology (EVIST), NSF, USA
1970s	Fellow, Member, Board of Directors, AAAS, USA

1969 - 1972	Member, Committee on Communication with Scholars in the People's Republic of
	China (CSCPRC), National Academy of Sciences (NAS), American Council of Learned
	Societies (ACLS), Social Science Research Council (SSRC), USA
1965 - 1967	Trustee, Museum of Science, Boston (MOS), USA
1959 - 1961	Member, Advisory Board, HSS, USA
1958 - 1997	Member, Advisory Board, Daedalus, USA
1956 - 1963	Founding Editor, Daedalus, USA

Honours and Awarded Memberships

2021	Frontiers of Knowledge Award, BBVA Foundation, Banco Bilbao Vizcaya Argentaria (BBVA), Spain
since 2016	Honorary Member, Austrian Academy of Sciences (OEAW), Austria
2008	Austrian Decoration for Science and Art, Federal Ministry Republic of Austria
2008	Abraham Pais Prize, American Physical Society (APS), USA
2001	Festschrift: Science and Culture, Transaction Publishers
1998	Joseph H. Hazen Prize, HSS, University of Notre Dame (ND), USA
1997	Rothschild Lecturer, Harvard University, Cambridge, USA
1994	Joseph Priestley Award, Dickinson College, Carlisle, USA
1989	J. D. Bernal Prize, Society for Social Studies of Science, University of Wisconsin-Milwaukee (UWM), USA
1989	Sarton Medal, History of Science Society (HSS), ND, USA
1989	Andrew Gemant Award, American Institute of Physics (AIP), College Park, USA
since 1987	Member, German National Academy of Sciences Leopoldina, Germany
1985	John P. McGovern Medal, The Scientific Research Honor Society (SIGMA XI), Durham, USA
1981	Jefferson Lecturer, National Endowment for the Humanities (NEH), Washington, D.C., USA
1980 - 1981	Guggenheim Fellowship, John Simon Guggenheim Memorial Foundation, New York City, USA
1980	Oersted Medal, American Association of Physics Teachers (AAPT), USA
1979	Herbert Spencer Lecturer, Oxford University, UK
1967	Robert A. Millikan Medal, AAPT, USA
	Alaska ala Alaska aka Marana ala Kanana ala Garana alaka

1962 George Sarton Memorial Lecturer, HSS, ND, USA

1962 Distinguished Service Citation, AAPT, USA

since 1960 Fellow, AAAS, USA

since 1956 Fellow, American Academy of Arts and Sciences (AAA&S), USA

Eight honorary doctorates

Honorary Member, New York Academy of Sciences (NYAS), New York, USA

Research Priorities

Gerald Holton is an American physicist and historian of science. He is considered one of the leading exponents of high-pressure physics and the history and philosophy of science. He has published seminal contributions to the history of science in the 19th and 20th centuries.

Gerald Holton's focus has been on the interrelationships between science and society. In doing so, he has examined how science shapes the culture of a society and how the cultural matrix of each historical era influences scientific practice. In his contributions to the history of science in the 19th and 20th centuries, he has demonstrated cultural, sociological and gendered connections between science and society.

He has also researched what prompts scientific research and what inspires scientists. He analysed humanistic thought processes as a driving force for researchers and identified general themes that recur in the thinking of scientists. The focus was on scientists such as Johannes Kepler, Isaac Newton and Albert Einstein. Gerald Holton has been instrumental in preserving the documentary legacy of Albert Einstein and making it accessible to the scientific community.

Gerald Holton is also known – given his biography – for his studies on the fate of children who were forced to flee National Socialist Germany. In this context, he has warned against antiscientific movements and their dangers to society.