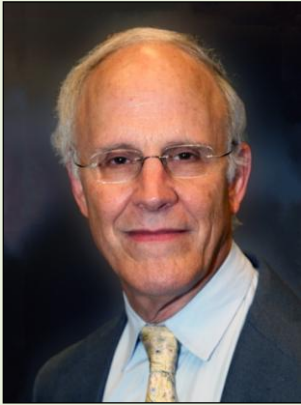


## David Jonathan Gross



David Jonathan Gross was born in Washington DC, in 1941, the eldest of four sons and the grandson of Jewish immigrants from Czechoslovakia-Hungary.

His first job was at the age of 11, was to proofread his father's book, *The Legislative Struggle: a Study in Social Combat*. His father helped write the US Employment Act of 1946 and accompanied the first US Diplomatic/aid packages to Israel in 1953. His mother was born in the Ukraine, moving to the US after WWI, and was a chemistry graduate.

The Grosses remained in Israel and David became an avid reader and student, interested in physics and mathematics, soon exceeding the knowledge of his teachers. He gained a B. Sc. at the Hebrew University and went on to take his physics doctorate from University of California at Berkeley in 1966. After that he spent three years as Junior Fellow at Harvard University.

After a Junior Fellowship at Harvard he taught at Princeton for 27 years, where he was Eugene Higgins Professor of Physics. In 1997 he moved to UCSB. He served as Director of the Kavli Institute for Theoretical Physics (KITP) at the University of California, Santa Barbara from 1997 to 2012 and is presently a Permanent Member at the KITP where he holds the Chancellor's Chair Professor in Theoretical Physics. Gross also was awarded an honorary doctorate by the University of Montpellier, France.

In 1973, Gross, working with his student Frank Wilczek at Princeton University, discovered asymptotic freedom – the primary feature of non-Abelian gauge theories, which holds that the closer quarks are to each other, the less the strong interaction (or color charge) between them; when quarks are in extreme proximity, the nuclear force between them is so weak that they behave almost as free particles. It led Gross and Wilczek to the formulation of Quantum Chromodynamics (QCD), the theory of the strong nuclear force, completing the Standard Model of Particle Physics – the electromagnetic force, the weak force and the strong force. In 2004, Gross was awarded the Nobel Prize in Physics with David Politzer and Frank Wilczek, for this discovery. He was made seminal contributions to the theory of quantum fields and superstrings.

His awards include the Sakurai Prize, MacArthur Prize, Dirac Medal, Oscar Klein Medal, Harvey Prize, the EPS Particle Physics Prize, the Grande Medaille d'Or and the Nobel Prize in Physics in 2004. He is a member/fellow of the American Physical Society, the U.S. National Academy of Science, the American Academy of Arts and Sciences, the AAAS, the American Philosophical Society, the Indian Academy of Science, the Chinese Academy of Science, and the Third World

Academy of Science. He holds 12 honoary degrees from the United States, Britain, France, Israel, Brazil, Belgium, and China.

Gross has been involved in many countries around the world in promoting, advising, and aiding science. He has helped to establish centers for theoretical physics in China, Europe, India, South America, and Vietnam. He chairs the Physics Committee of the Solvay Institutes and has organized the Solvay Conferences for the last 12 years. He has directed the Jerusalem Winter School in Physics for the last 15 years.

He has two children by his first wife, Shulamith Toaff and a stepdaughter with his second wife, Jacquelyn Savani.

Gross was invited in Indian Statistical Institute on the occasion of 52<sup>nd</sup> Convocation of the institute on 9<sup>th</sup> January 2018 and delivered the Convocation Address and also a Public Lecture titled as 'Physics and Mathematics at the Frontier'.

Sources:

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<https://www.aps.org/about/governance/election/gross.cfm>

<http://www.mediatheque.lindau-nobel.org/laureates/gross>

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