

Luca Peliti Biography

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Luca Peliti (August 18, 1948—) was born in Rome, Italy, the son of Federico, an executive of a communications company, and Leonilde Pizzuti, a high-school teacher. He spent his youth in Rome, where he attended the gymnasium school Istituto Massimiliano Massimo.

In 1966, Peliti started studying at Università di Roma, La Sapienza, obtaining a Laurea in Physics in February 1971, for a thesis titled “Il gruppo di rinormalizzazione nei ferromagneti di Heisenberg” [The renormalization group in Heisenberg ferromagnets], completed under the supervision of Carlo Di Castro. He then went to Queen Mary College of the University of London with a scholarship by the Drapers’ Company of the City of London, where he obtained a PhD in 1974 for a thesis titled “Renormalisation group and generating functionals in the theory of critical phenomena,” completed under the supervision of Prof. W. Young. From 1975-1977, he was a temporary foreign collaborator at the Service de Physique Théorique of Centre d’Études Nucléaires, in Saclay, France, working with Ciarano De Dominicis. He then became Lecturer in Structure of Matter at Università della Calabria (1977-1978), Lecturer in Physics (Pharmacy) at University of Camerino (1978-1979), Research Assistant in the Structure of Matter group at La Sapienza (1979-1983), and Associate Professor of Experimental Physics at La Sapienza (1983-1987), before becoming Professor of Quantum Mechanics (1987-1988) and then Professor of Statistical Mechanics (1988-2014) at Università degli Studi di Napoli Federico II. Since 2016, he is deputy director of the Santa Marinella Research Institute. Throughout his career, Peliti has also maintained various other affiliations, including with the Gruppo Nazionale di Struttura della Materia (1974-1994), the Istituto Nazionale di Fisica Nucleare (1984-2014), the Istituto Nazionale di Fisica della Materia (1994-2005), Consorzio Nazionale Interuniversitario di Struttura della Materia (2005-2009), and the Simons Center for Systems Biology (2013-2016).

Peliti studied critical phenomena at La Sapienza, notably collaborating with his friend and classmate, Giorgio Parisi, on the topic. Afterwards, Peliti mostly pursued topics at the interface between statistical and condensed matter physics. While he remained personally close to Parisi, he only rarely worked on spin-glass related problems. He nevertheless co-organized – with Carlo di Castro and Claudio Castellani – the early conference *Disordered Systems and Localization* (1981) and later briefly worked on spin glass dynamics with Jorge Kurchan and Leticia Cugliandolo. He also organized, in collaboration with W. Fitch, T. Hwa, G. Stormo and C. Tang, the KITP Santa Barbara program *Statistical Physics of Biological Information*, January to June 2001.

Peliti authored a couple of textbooks: *Stochastic Thermodynamics: An Introduction* (Princeton University Press, 2021), and *Statistical Mechanics in a Nutshell* (Princeton University Press, 2011), translated from *Appunti di Meccanica Statistica* (Bollati Boringhieri,

2003). He also translated Einstein's contributions to statistical mechanics in M. Badino, ed., *Scritti di meccanica statistica* (BookTime, 2018).