

Joseph A. Rudnick Biography

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Joseph Alan Rudnick (1944-) was born and spent his childhood in Los Angeles, California, USA, the son of Isadore Rudnick, an experimental physicist, and Mildred R. Karasik.

Rudnick did his undergraduate studies at UC Berkeley (1961-1965), where he obtained a BA in Physics, before pursuing a PhD at UC San Diego (1965-1970), writing a thesis entitled *Surface response properties of a bounded electron gas* under the supervision of Walter Kohn. He was then an NSF-funded postdoc at the University of Washington (1970-1972), subsequently an independent postdoc at Technion (1972-1974) and a lecturer at the University of Tel Aviv (1973-74). He served a postdoc and instructor at Case Western Reserve (1974-1978), while also spending some summers visiting the IBM Research Division (1975-1978). He was an assistant-professor at Tufts (1978) and then assistant, associate and full professor at UC Santa Cruz (1978-1984), before joining UCLA as professor in 1984. There, he twice served as departmental chair (1986-1989; 2004-2006), and was Dean of the Division of Physical Sciences from 2006 until his retirement, in 2016.

Rudnick started working on renormalization group approaches during his time at the Technion, and encountered spin glasses while visiting S.-k. Ma at UC San Diego a few years later. At IBM, he collaborated with Erling Pytte and Robert Pelcovits, notably joining the two approaches in formulating a perturbative RG treatment of the Ising-type random-bond spin-glass model. After 1980, he remained only loosely interested in spin glasses, working principally on problems in statistical physics and soft matter, such as random walks and virus capsid assembly.