

C I T A T I O N

For the Conferment of the
Distinguished Alumni Award
on

Prof. Rahul Pandit



Professor Rahul Pandit received his Master of Science degree in Physics (five year program) from IIT Delhi in 1977. He received his Ph.D. in Physics from the University of Illinois at Urbana-Champaign in 1982.

Professor Pandit is the MSIL Chair Professor in the Department of Physics, Indian Institute of Science, Bangalore and Chairman of the Division of Physical and Mathematical Sciences there.

Before joining Indian Institute of Science in 1984, Professor Pandit was a postdoctoral fellow in the Laboratory for Atomic and Solid State Physics, Cornell University from 1981 to 1983. He has held visiting positions at The Ohio State University, Columbus, Ohio, the University of Missouri, Columbia, Missouri, the International Centre for Theoretical Physics, Trieste, Italy, and the Observatoire de la Cote D'Azur, France. He is also a member of the Condensed-Matter Theory Unit, Jawaharlal Nehru Centre for Advanced Scientific Research and an Adjunct Professor in the International Centre for Theoretical Sciences of the Tata Institute of Fundamental Research.

Professor Pandit has done research on a wide variety of problems in the statistical mechanics of condensed-matter systems, nonlinear dynamics, and turbulence. These include the following: surface phase transitions like wetting and multilayer adsorption; complex fluids like microemulsion, micellar, lamellar, and sponge phases in oil-water-surfactant mixtures and bilayer systems, and semiflexible, living and equilibrium polymers; quantum antiferromagnets and oxides that show strong-correlation

effects like the colossal magnetoresistive manganites; systems of interacting bosons; the hysteretic behaviour of driven spin systems and magnets; turbulence and spatiotemporal chaos in extended, deterministic dynamical systems such as turbulence in fluids, fluids with polymers, and plasmas, and spiral and scroll-wave turbulence of electrical activation associated with cardiac arrhythmias like ventricular fibrillation. He has published several papers on these subjects

Professor Pandit has received many honours and awards including the Young Scientist Medal of the Indian National Science Academy (1989), the Fellowship of the Indian Academy of Sciences (1996), the Shanti Swarup Bhatnagar Award of the Council for Scientific and Industrial Research (2001), the Meghnad Saha Award of the University Grants Commission (2004), the Fellowship of the Indian National Science Academy (2006), the JC Bose Fellowship of the Department of Science and Technology (2007), and the Professor Rustom Choksi Award of the Indian Institute of Science (2009).

Professor Pandit is on the Advisory Editorial Board of *Physica A: Statistical Mechanics and its Applications*, an Elsevier Science Journal; and he is Divisional Associate Editor of *Physical Review Letters*.

In honouring Professor Rahul Pandit, IIT Delhi recognizes the outstanding contributions made by him as a Researcher, Scientist and Educator. Through his achievements, Professor Rahul Pandit has brought glory to the name of the Institute.