

Professor Ganapathy Baskaran: Brief Profile



Ganapathy Baskaran is an Indian theoretical physicist, known for his work on condensed matter physics and strongly correlated materials. Baskaran is an Emeritus Professor of physics at the Institute of Mathematical Sciences in Chennai, India and a Distinguished Research Chair at the Perimeter Institute for Theoretical Physics in Waterloo, Canada.

Baskaran completed his undergraduate education at the Thiagarajar college and the American College in Madurai, India. He got his PhD in theoretical physics from the Indian Institute of Science, Bangalore in 1975.

In 1987–88, Baskaran, along with P.W. Anderson at Princeton University, developed the resonating valence bond theory to describe the behaviour of high-temperature superconductors. Baskaran is also known for his discovery of emerging gauge fields in strongly correlated systems, and for his predictions of p-wave superconductivity in strontium ruthenate and of high-temperature superconductivity in graphene; predictions which were later experimentally verified. In 1983, Baskaran was the first recipient of the ICTP Prize awarded by the International Center for Theoretical Physics, Trieste to young scientists in developing countries for work in physics and mathematics. He was a visiting scholar at the Institute for Advanced Study in the summer of 1996. He was also awarded the Shanti Swarup Bhatnagar Prize by the Government of India in 1990.



14th

C. K. Majumdar Memorial Lecture

on

Art of Model Building in Quantum World

by

Professor Ganapathy Baskaran

**Emeritus Professor of Physics,
Institute of Mathematical Sciences,
Chennai**

Tuesday, 10th December, 2019 at 3:30 pm

at

**Silver Jubilee Hall,
SNBNCBS**



**S. N. Bose National Centre for Basic Sciences
Block- JD, Sector- III, Salt Lake
Kolkata - 700 106**

Art of Model Building in Quantum World

Professor Ganapathy Baskaran

ABSTRACT

World of quantum matter continues to challenge us with new experimental results and situations of increasing complexity and variety. During these happy encounters, contemplation and deep insights result in models. They are caricatures of reality. Hilbert space is vast and rich beyond imagination. One gets lost. These models help us navigate and discover new worlds. Quantum seeds like singlet bond (a Bell pair) grow into flowers in the garden of models. Like bees, we will collect nectars from Majumdar-Ghosh and other models.



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On behalf of Staff & Students of the Centre
I cordially invite you to the

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Prof. Samit Kumar Ray
Director