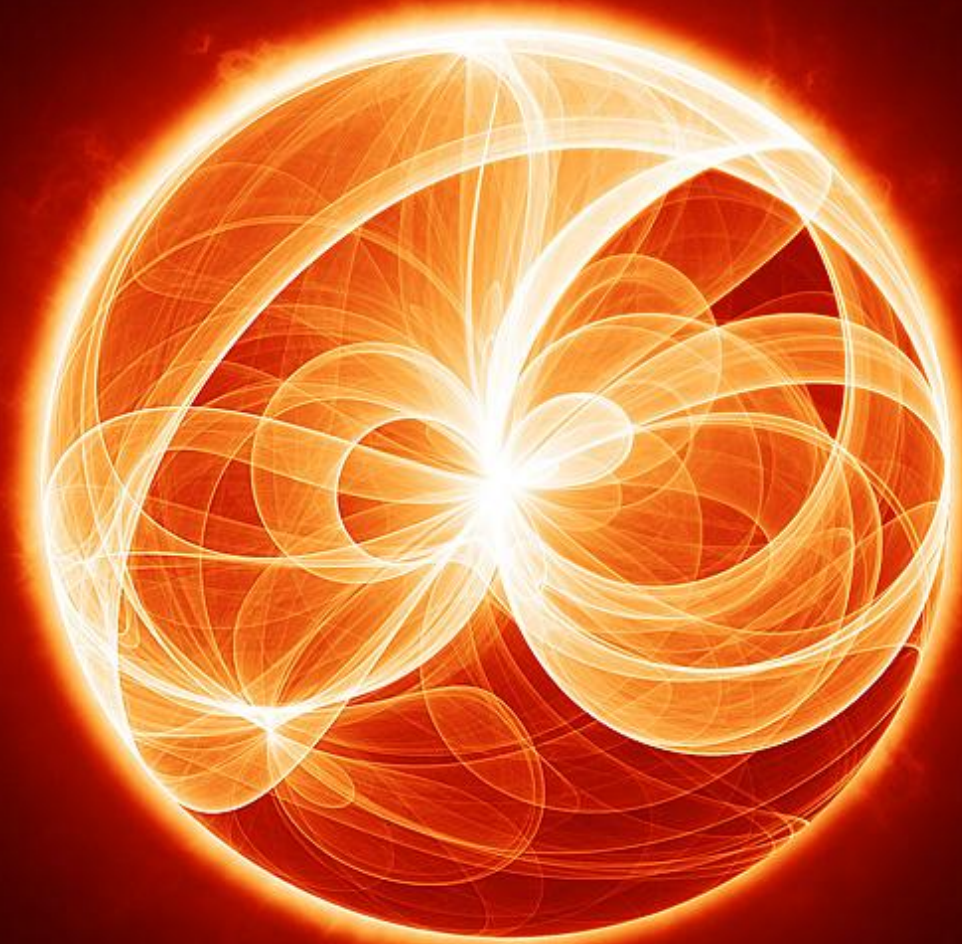


TUESDAY COLLOQUIUM



The motion of large objects such as cricket balls and planets is described by Newton's laws of classical mechanics. However, for microscopic objects such as atoms, an entirely different set of laws hold - the laws of quantum mechanics. A microscopic particle cannot have a precise position and precise momentum at the same time. Its state is described by a complex number prescribed all over space, which evolves in time according to the Schrodinger equation. The outcome of a measurement on a microscopic system cannot be predicted with certainty - only the probability of an outcome is known. What is the origin of probabilities in quantum mechanics? How large must an object be, so that the laws obeyed by it change from quantum mechanics to classical mechanics? This talk will describe modern ideas which address these questions, and laboratory experiments which are being carried out to test these ideas.

Prof T.P. Singh obtained his Masters in Physics from IIT, Delhi and Ph.D. from TIFR where he is a faculty member since 1989.

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Quantum Mechanics: An Unfinished Story

By Professor T.P. Singh, TIFR

Tuesday, January 11, 2011 at 4.30 p.m.

Seminar Room PF-AG 14, Prebabs, Near Annabau Sathe Bhavan
University of Mumbai, Vidyanagari Campus, Mumbai 400098