

Colloquium

Schrodinger's cat, black holes, and the origin of space-time

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Quantum theory predicts that a cat can be alive and dead at the same time. However, we never see such cats. And that is the paradox. One possible solution is to propose a new theory such that the new mechanics does not predict a “dead+alive” cat. This new theory is known as spontaneous collapse, and experiments are being done to test if this new theory is the correct one. It turns out that spontaneous collapse can also explain the thermodynamic nature of black holes, and also help us understand the origin of space-time. It also guides us to a new quantum theory of gravity, in which the fundamental units of structure are “atoms of apace-time-matter”.

Thursday, Aug 22nd 2019

4:00 PM (Tea/Coffee at 3:30 PM)

Auditorium, TIFR-H