

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

2A&B, Raja S.C. Mullick Road, Jadavpur, Kolkata700032, India

Physical Sciences Colloquium

Speaker: Prof. Indrani Bose, Department of Physics, Bose Institute

Title : Criticality in the Living Cell

Date: March 21, 2018

Venue : C V Raman Hall

Time: 4:00 PM

Abstract : Phase transitions and critical phenomena are characteristic features of many condensed matter systems. Phase transitions have been extensively studied in systems both in and out of equilibrium. A recent focus of research activity is on "critical" behaviour in the nonequilibrium in living systems constituting soft condensed matter. In this talk, an introduction will be given to the concept of criticality in the living cell. The concept will be illustrated with the examples of gene expression and cell differentiation, two key processes associated with the living cell. Experimental signatures of critical-like behaviour will be discussed and a theoretical framework for obtaining such signatures described. The utility of obtaining such signatures will also be highlighted.

All are cordially invited to attend the Colloquium.