



**TIFR Centre for Interdisciplinary Sciences,
Narsingi, Hyderabad 500075**

Seminar

Impact of the Dynamic Cytoskeleton on Intracellular Sub-Diffusion: A Local Motion Analysis

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Abstract: Intracellular transport is a complex interplay of ballistic transport along filaments and of diffusive motion, reliably delivering material and allowing for cell differentiation, migration and proliferation. We study intracellular transport in *Dictyostelium discoideum* cells by single particle tracking of fluorescent nano particles and using a local mean-square displacement (MSD) analysis of the experimental trajectory. We identify both microtubules and F-actin as the cause for intracellular subdiffusion. Our findings might give insights into material transport and information exchange in living cells, which might facilitate gaining control over cell functions.

Date: Thursday, January 10th 2013

Time: 04:00PM (Tea/Coffee at 03:30PM)

Venue: Conference Hall, TCIS

All are cordially invited