INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

2A & 2B, Raja S.C. Mullick Road, Jadavpur, Kolkata-700032, India

Seminar Notice

Org. by
School of Physical Sciences

Title:	**Brownian motion with coordinate dependent damping and diffusion**
Speaker:	**Arijit Bhattacharyay, IISER, Pune**
Date:	**May 24, 2019 (Friday)**
Time:	**3:00 p.m.**
Venue:	**Physics Seminar Room (C-406), 3rd Floor, Centenary Building, IACS**
Abstract:	Brownian motion with coordinate dependence of the diffusion and damping is ubiquitous. It is experimentally observed in a confined system, it is invoked to model biological phenomena, hydrodynamics of optical systems, open quantum systems etc. The theory of such a phenomenon is controversial for many reasons. I would discuss the existing standard theory of such Brownian motion and would also show an alternative using standard stochastic methods. The latter is based on modification of Fick's law as given by Kramers-Moyal expansion, and produces interesting results at the over-damped limit. I would also discuss some experimental results.

All are cordially invited to attend the seminar