ICTS-NCBS Dynamic Friday

Title	:	Understanding the motion of single active particles
Speaker	:	Abhishek Dhar, International Centre for Theoretical Sciences-TIFR
Date	:	Friday, March 6, 2020
Time	:	3:00 pm
Venue	:	NCBS (ground floor of Simons Centre)
Abstract	:	Several stochastic dynamical models have recently been developed to describe the motion of so-called "active" particles such as bacteria, vibrated granular particles and self propelled particles. Examples include the Run and Tumble Particle (RTP) model and the Active Brownian Particle (ABP) model. Mathematically, the absence of detailed balance in the dynamics makes, even the problem of a single active particle quite challenging. The talk will describe some of our recent analytical results and point out some surprising qualitative features that we find. An interesting connection to the equilibrium physics of semi-flexible polymers will also be discussed.