



ICTS Statistical Physics Journal Club Seminar

- Title : Active Brownian motion with directional reversals
- Speaker : Sanjib Sabhapandit (Raman Research Institute, Bengaluru)
- Date : Thursday, 4th March 2021
- Time : 03:00 pm (IST)
- Abstract : Active Brownian motion with intermittent direction reversals are common in a class of bacteria like *Myxococcus xanthus* and *Pseudomonas putida*. For such a motion in two dimensions, the presence of the two time scales set by the rotational diffusion constant and the reversal rate gives rise to four distinct dynamical regimes showing distinct behaviors. We characterize these behaviors by analytically computing the position distribution and persistence exponents. The position distribution shows a crossover from a strongly non-diffusive and anisotropic behavior at short-times to a diffusive isotropic behavior via an intermediate regime with a non-trivial probability distribution.
- Venue : Please click on the link to join the meeting
<https://zoom.us/j/99935774046?pwd=VW16TVpZMmxkRy9JTWloRHZsdUIWQT09>
Meeting ID: 999 3577 4046
Passcode: 380722