

## Visitor, Associates and Students' Programme (VASP) presents Webinar Series on Statistical Mechanics



13 SEP 2022

05:00 PM (IST)



wba-znky-pia



SNBoseNationalCentre  
forBasicSciences

### TITLE

Active Matter: Applying the materials physics paradigm to biology

### ABSTRACT

Active matter is a term that has come to describe diverse systems from flocking animals to the cytoskeleton of a cell. In this talk I will give an overview of the theoretical paradigm that unifies these diverse systems and discuss some results from minimal models for selfpropelled particles and suspension of cytoskeletal filaments. Then, I will present recent theoretical progress in using data driven techniques to bridge experiment and theory in active suspensions.

### SPEAKER

**Dr. Aparna Baskaran, Brandeis University, USA**

Dr. Aparna Baskaran is a theoretical physicist specializing in the field of nonequilibrium statistical physics. She is a member of faculty in Martin A. Fisher School of Physics in Brandeis University. She is an alumni of Pondicherry University from where she did her M. Sc in Physics in 2001. She obtained her PhD degree from University of Florida in 2006. She did her postdoctoral research in Syracuse University till 2010 after which she joined Brandeis University and started her own research group. Her group is mainly focussed on understanding the physics behind pattern formation and phase transitions in active matter systems and her research has made quite a few important contributions in this area. She is a recipient prestigious APS Early Career Award in Soft Matter Research in 2019.

