

Biological and Soft Matter Group Meeting

Wednesday at 15:00 in Chloroplast (S-03), NCBS

Please keep research talks to a maximum of 1h 30m, and all paper presentations to 45m maximum

Monsoon Term, 2016

27 Jul	Kabir Husain Alex Rautu	<i>Journal Club:</i> - How Far from Equilibrium is Active Matter? [doi:10.1103/PhysRevLett.117.038103] - Growth and Division of Active Droplets: A Model for Protocells [arXiv:1603.01571]
10 Aug	Debsankar Banerjee Raj Hosein	<i>Journal Club:</i> - A Minimal Physical Model Captures the Shapes of Crawling Cells [doi:10.1038/ncomms6420] - Anomalous Dynamics of Intruders in a Crowded Environment of Mobile Obstacles [doi:10.1038/ncomms11133]
17 Aug	Amit Kumar	How Cells Control Their Surface Area
24 Aug	Anupam Singh Debajit Goswami	<i>Journal Club:</i> - Reconstituting Intracellular Vesicle Fusion Reactions: The Essential Role of Macromolecular Crowding [doi:10.1021/jacs.5b08306] - Force Feedback Controls Motor Activity and Mechanical Properties of Self-Assembling Branched Actin Networks [doi:10.1016/j.cell.2015.11.057]
31 Aug	Rituparno Mandal	Glassy Dynamics in Active Matter
07 Sep	Amit Singh Alkesh Yadav	<i>Journal Club:</i> - Exact solutions for hydrodynamic interactions of two squirming spheres [arXiv:1602.06912] - Crystallization of Self-Propelled Hard Discs [doi:10.1103/PhysRevLett.117.098004]
14 Sep	Alex Rautu	Membranes: Inclusions and Active Trafficking Dynamics
21 Sep	Vijay Kumar Richard Morris	<i>Journal Club:</i> - Active Particles with Soft and Curved Walls: Equation of State, Ratchets, and Instabilities [doi:10.1103/PhysRevLett.117.098001] - Elastic Membrane Deformations Govern Interleaflet Coupling of Lipid-Ordered Domains [doi:10.1103/PhysRevLett.115.088101]
28 Sep	Suman Das	A Lower Bound on the Free-Energy Cost of Molecular Measurements

Post-monsoon Term, 2016

11 Oct *	Hans Kubitschke (University of Leipzig)	E-Cadherin Expression and Localization is Correlated to Cellular Softness in Cancer Development
	Erik Morawetz (University of Leipzig)	Proteomic Details of Differential Adhesion Hypothesis
19 Oct	Krishnan Iyer Rituparno Mandal	<i>Journal Club:</i> - The physics of epigenetics (Section IV) [doi:10.1103/RevModPhys.88.025002] - Jamming and Attraction of Interacting Run-and-Tumble Random Walkers [doi:10.1103/PhysRevLett.116.218101]
26 Oct	Amit Das	Agent-based Description of Dynamic Actomyosin
02 Nov *	Prerna Sharma (IISc, Bangalore)	Curvature Instabilities in Colloidal Membranes
09 Nov	Amit Kumar Amit Das	<i>Journal Club:</i> - Random partitioning of molecules at cell division [doi:10.1073/pnas.1013171108] - Designing multivalent probes for tunable superselective targeting [doi:10.1073/pnas.1500622112]
16 Nov	Richard Morris	Free-surface Active Elastomers
23 Nov *	Ramakrishnan Natesan (University of Pennsylvania)	Curvature Remodelling of Cell Membranes and Its Implications in Targeted Drug Delivery
30 Nov	Alex Rautu Debsankar Banerjee	<i>Journal Club:</i> - Stretching an Elastic Loop: Crease, Helicoid, and Pop Out [doi:10.1103/PhysRevLett.117.198003] - Bursts of activity in collective cell migration [doi:10.1073/pnas.1600503113]

* Invited speakers