BiophysTO Lunchtime Seminar Series

Date
Thursday, March 23, 2017
4:10 pm

Location
McLennan MP102
60 St George

Joint with the Physics Colloquium

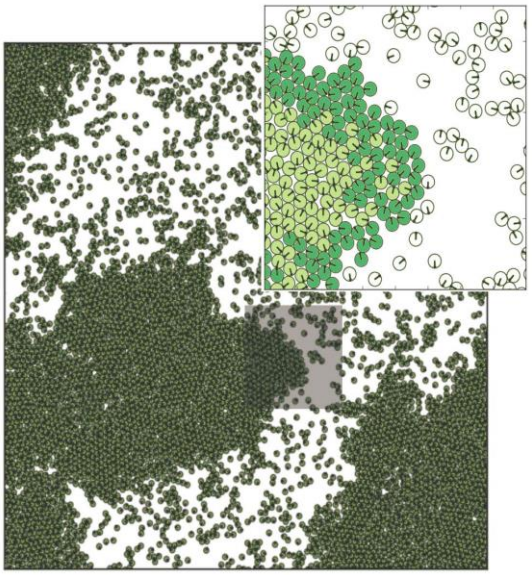
Note the change in time and place

Cristina Marchetti

Physics Department, Syracuse University

Active Matter: from colloids to living cells

Collections of self-propelled entities, from living cells to engineered microswimmers, organize in a rich variety of active fluid and solid states, with unusual properties. For instance, active fluids can flow with no externally applied driving forces and active gases do not fill their container. In this talk I will describe the behavior of such "active materials", focusing on two examples of liquid-solid transitions driven by active processes. The first is the formation of cohesive matter with no cohesive forces in collections of purely repulsive active colloids. The second describes the properties of epithelial tissues that exhibit a liquid-solid transition at constant density driven by cell motility, contractility, and cell-cell adhesion.



Host: Dr. Anton Zilman

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