

PHYSICAL MATHEMATICS SEMINAR

Hydrodynamics and multiscale order in confluent epithelia

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ABSTRACT:

In this talk I will review our ongoing theoretical and experimental efforts toward deciphering the hydrodynamic behavior of confluent epithelia. The ability of epithelial cells to collectively flow lies at the heart of a myriad of processes that are instrumental for life, such as embryonic morphogenesis and wound healing, but also of life-threatening conditions, such as metastatic cancer. Understanding the physical origin of these mechanisms requires going beyond the current hydrodynamic theories of complex fluids and introducing a new theoretical framework, able to account for biomechanical activity as well as for scale-dependent liquid crystalline order.

TUESDAY, APRIL 5, 2022

2:30 PM – 3:30 PM

<https://math.mit.edu/sites/pms/>

ZOOM Link...

<https://mit.zoom.us/j/95597721876>