

Séminaire

Mardi 3 mars 2026 à 10h30
Amphithéâtre Henri Benoît

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Unveiling how cell dynamics and stresses shape tissues

Confluent cell monolayers are 2D active systems exhibiting a variety of dynamical states, ranging from solid-like jammed systems to fluid-like flocking systems. Such a rich panorama results in different mechanical stresses the single cells within the monolayer are subjected to. Due to their impressive complexity, cells do not merely react to the mechanical stresses but actively interact with the environment, e.g. adapting their mechanical properties to the stimuli.

The investigation of these systems from the physical perspective is therefore of paramount interest for unraveling how cells respond to mechano-physical stimuli and how the whole system – the tissue – is shaped by them. In this talk I present some relevant cellular systems from my past and current activities, ranging from tumor-like systems to tissue morphogenesis, where the cellular dynamics is systematically quantified and analyzed to the scope of shading new light on the crucial interplay between cell dynamics, stresses and tissue evolution.

Les personnes souhaitant rencontrer l'orateur sont priées de prendre contact avec Antonio Stocco.