



## Mechanical imprints of cell fate and cell competition

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Epithelia are communities of cells with close intercellular communications and of highly ordered coordination in their motion. Mechanical properties of epithelial tissues are important for our understanding of many vital biological processes, including homeostasis, morphogenesis, and metastasis and are tightly regulated by cell-cell interactions. I will present examples highlighting the importance of mechanical forces during cell extrusion and cell competition. In the first part, I will focus on how cell extrusion and the fate of extruding cells from epithelial tissues can be determined by mechanical stresses. In the second part, I will show how cell competition, a mechanism by which the expansion of one cell population leads to the elimination of another, can be governed by the transmission of intercellular forces. Throughout the talk, I'll discuss the close links between mechanics and cell biology, as well as possible analogies between physical and biological systems.

**Wednesday, May 14<sup>th</sup>, 2025 at 2:15 pm**

Prandtl lecture hall and  
Zoom Meeting ID: 959 2774 3389  
Passcode: 651129, [direct link](#)

