中央大學物理學系

Department of Physics, National Central University





溫福來教授 Prof. Fu-Lai Wen Department of Science Education, National Taipei University of Education, Taiwan

Multicellular dynamics: from experiments to modeling

Date:	2023/12/19 (Tue)
Venue:	S4-208
Time:	11:00-12:00

Abstract:

Tissues consist of many cellsthat work together to perform a specific function for the organism. Each cell within a tissue can exhibit rich dynamics such as cell shape changes and cell movement. The various cell dynamics generate the mechanical forces necessary for tissue shape formation during embryo development and tissue repair in wound healing process. Understanding how individual cell dynamics influence global tissue behavior is crucial in biology and biomedical engineering, opening a new frontier in the physics of soft matter, as cells can be seen as an active soft material that is far from equilibrium. In this talk, I will present how physics can address complex problems found in nonequilibrium living systems, such as how tissues acquire their characteristic shape, respond to various mechanical and chemical perturbations of their homeostatic state, and repair properly when they get injured

