SFB / GRK - Seminar

Dr. Guillaume Salbreux

MPI für Physik komplexer Systeme,
Dresden

„Physics of tissue spreading and contraction”

Understanding how mechanical forces drive cell and tissue flows and deformations is crucial to shed light on processes involved in morphogenesis. Forces are generated within cells by molecular motors acting on cytoskeletal networks. We investigate here how actomyosin-based forces give rise to motion at the scale of the organism during zebrafish epiboly, an event in the early development of the zebrafish where a superficial tissue, the enveloping layer, expands and spreads over the yolk of the embryo. We show that a similar physical description allows describing how cell flows and deformations combine to give rise to Walker cell motion in confinement. Finally, we discuss the process of contraction of a tissue in three dimensions during dorsal closure in the Drosophila embryo.

Dienstag, 29. Oktober 2013,14.00 c.t.

Gebäude E2 6, Seminarraum E.04

Saarbrücken

Der Gast wird betreut von Karsten Kruse (Tel. 2763)

Alle Interessenten sind herzlich eingeladen.

Die Sprecher des SFB und des GRK
Heiko Rieger, Ludger Santen und Manfred Lücke

GRK 1276 „Strukturbildung und Transport in komplexen Systemen“

SFB 1027 „Physikalische Modellierung von Nicht-Gleichgewichtsprozessen in biologischen Systemen“