

IWR Colloquium

Winter Semester 2019 / 2020

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**Mathematikon, Conference Room / 5th Floor
Im Neuenheimer Feld 205, 69120 Heidelberg**

Speaker:

Prof. Martin Burger
Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU)

Title:

“Phase separation from biological and social interaction”

Abstract:

Mathematical models for demixing of materials have been investigated extensively in the last decades and are nowadays well understood. A related topic that is far less studied are phase separation effects in biology and social systems. New challenges arise from the self-organized separation, emerging from microscopic interactions between individuals of different kinds. Classical examples are spatial cell sorting, lane formation in pedestrian crowds, or segregation on housing markets. In this talk we will discuss the derivation and analysis of mesoscopic and macroscopic phase separation effects and some applications.

Website Prof. Burger:

en.www.math.fau.de/applied-mathematics-prof-burger

Website IWR-Colloquium:

www.iwr.uni-heidelberg.de/iwr-colloquium