

How do cells move? Mathematical modelling of cytoskeletal dynamics and cell migration

Abstract

The locomotion of cells plays a crucial role for many biological and physiological processes. To understand or even to control these processes, we have to understand the mechanisms leading to cell migration. The aim of this project is to develop powerful mathematical models for cell locomotion, to investigate them both analytically and numerically, and to carry out especially designed experiments. A close connection between theoretical modelling and ex-perimental work will be established by the cooperation between the mathematical groups and the group at the Institute of Molecular Biotechnology, working in bio-optics and cytoskeleton dynamics.

Keywords:

cytoskeletal dynamics, cell migration

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Further links about the involved persons and regarding the project you can find at

<https://archiv.wwtf.at/programmes/mathematics/MA04-039>