universität wien
Fakultät für Mathematik

EINLADUNG

zum

HABILITATIONSVORTRAG

DI Mag. Dr. Dietmar Ölz
(School of Mathematics and Physics, University of Queensland)

“Mathematical Mechanobiology of the Cell”

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Abstract: In this habilitation talk I will present several studies on mathematical and modelling aspects of cytoskeleton dynamics.

I will present results on existence, convergence and regularization of solutions of the curve straightening flow of open, planar curves corresponding to the worm-like chain model for semi-flexible biopolymers.
Another group results concerns a system of integro-differential equations describing the transient remodeling of protein linkages mediating non-linear friction.

A major part of the talk will concern a line of research on the modelling of bundled cytoskeleton fibers. The topics which will be covered include force generation in non-muscle actomyosin bundles and the derivation of a drift-diffusion equation modeling intracellular transport along bundles of microtubules.

Mittwoch, 20. Dezember 2017,
10:00 Uhr – 11:00 Uhr,

Fakultät für Mathematik,
HS 02, EG.
Oskar-Morgenstern-Platz 1
1090 Wien

Christian Schmeiser
Christian Krattenthaler