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UNIVERSITÄT MAINZ

Einladung zum Vortrag
im Oberseminar Analysis

Fachbereich 08
Physik, Mathematik
und Informatik

Institut für Mathematik

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Dynamics of biological slow-fast systems

Ilona Kosiuk

Multiple timescales are ubiquitous in models of real-world phenomena. For instance, many important biological processes evolve on different time scales and therefore consist of slow and fast components. Differential equations involving variables evolving on widely different time scales yield rich dynamics. Geometric methods and dynamical systems theory play important roles in the study of such systems.

In this talk I will discuss some of the main concepts from so-called geometric singular perturbation theory for slow-fast systems and geometric desingularizion based on the blow-up method. Non-trivial applications arising in cell biology will be presented.

Alle Interessierten sind herzlich eingeladen.

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