Bachelor Thesis Assignment

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Study Programme: B2647 Information and Communication Technology
Study Branch: 1103R031 Computational Mathematics
Title: Dynamika klasických modelů
Dynamics of the classical models

Description:
The theory of chaos was studied by many authors from different point of view. It is possible to say that we can study „chaotic“ movement of the system if it is sensitive on the initial conditions and parameters.

Such a phenomenon is called „bifurcation“. Old models like „Predator-Pray“ gives us many open problems to solve. The main aim of this thesis is to find out some properties like periodicity, invariance and stability with respect to the parameter of the system.

The tools for the thesis:
1. Give elementary notions
2. Construct typical maps of the discrete dynamical system field
3. Search for the properties of the system: periodicity, invariance, stability
4. Construct bifurcation diagram

References:
Extent and terms of a thesis are specified in directions for its elaboration that are opened to the public on the web sites of the faculty.

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