

Investigation of dynamical systems with *Mathematica*

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The workshop is a organic continuation of the talk “Teaching differential equation models with *Mathematica* in applied fields” by the author et al., in which we emphasize that computer-aided study of differential equations are of extremely importance in teaching Mathematics for applied fields.

In the workshop, we give an overview of the tools of *Mathematica* to investigate vector fields, differential and difference equations. Then, following our courses “Computer-aided mathematical modeling” at University of Szeged and Beuth Hochschule für Technik Berlin, we also develop simple interactive classroom applications to study models in Physics, Population Dynamics, and Epidemiology. Some references of the author can be found on <http://www.mathmodel.szote.u-szeged.hu>