



# Software for numerical analysis of chaotic class C amplifier in mathcad

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**Abstract** – Program allows fast numerical analysis of mathematical and circuit model of single transistor-based class C amplifier, including graphic visualization of solution. It is shown that basic configuration of this amplifier can generate chaotic behavior if bipolar transistor is modeled by two-port described by admittance parameters with nonlinear trans-conductances. Analyzed system can be defined by set of ordinary differential equations of integer as well as non-integer order (approximation in the frequency domain is used).

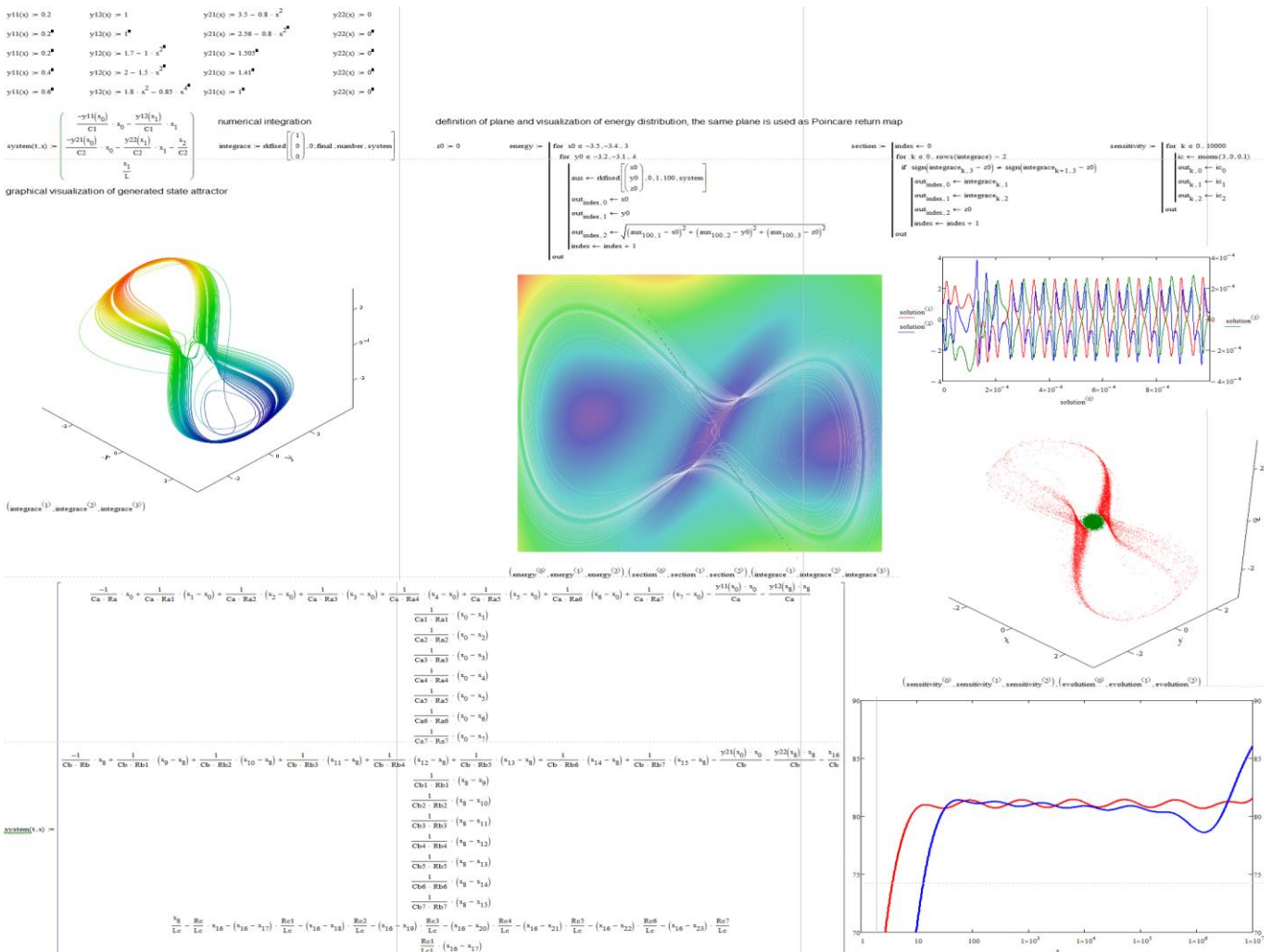


Fig. 1: Fragments of script for analysis of mathematical model of class C transistor amplifier: numerical integration, calculation of system sensitivities to initial conditions, and energies.