

## **Homoclinic Orbits Layering in the Coupled Rotor Nonlinear Dynamics and Chaotic Clock Models: a Paradi**

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For examine natural clocks of reductor, as well as source of nonlinear vibrations and noise in its dynamics, it is necessary to investigate properties of nonlinear dynamics, and phase portraits, as well as structures of homoclinic orbits, layering and sensitivity of this layering of homoclinic orbits and bifurcation of homoclinic points. In the paper mass moment vectors introduced by author at ICTAM Haifa 92, are used to present a vector method for the analysis of kinetic parameter dynamics of coupled rigid rotors with deviational properties of mass changeable distribution and with couple rotations. A numerical experiment with the use of derived analytical expressions and of MathCAD program was used to create a visualization of phase portraits of nonlinear dynamics of coupled rotors and the layering of homoclinic orbits with respect to the system parameters change.

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