

SELF-ORGANIZATION OF AN UNSTABLE
SYSTEM BY THE HOPF BIFURCATION SCENARIO

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S u m m a r y

Self-organization in a synergetic system that undergoes perturbations of the fold catastrophe type has been considered. It has been shown that, provided a special choice of the system parameters, which leads to the Hopf bifurcation and the emergence of stable limit cycles, stable states may appear in an unstable system. The corresponding bifurcation and phase diagrams have been obtained. The conditions of the formation of stable and unstable focuses have been revealed.