

NONHYPERBOLIC SINGULARITIES IN A CHEMICAL MODEL

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Abstract: *A two-dimensional system with four positive parameters is investigated from dynamical bifurcation point of view. The manifolds where a triple and a double equilibrium exists, and the manifold defined by the presence of an equilibrium with a double-zero eigenvalue are defined by parametric expressions. Then on the basis on these parametric expressions, we prove in the system the existence of a saddle-node and cusp bifurcation.*

Key words: *dynamical system, saddle-node, cusp.*

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