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About solutions Ltraveling waves of Lienard equation cross-diffusion updatings

LSlow and Lfast traveling waves of the studied two-dimensional spatial systems satisfy to different reduced two-dimensional ODE systems. Structure of these system phase planes is analyzed by methods of the bifurcation theory; then results are interpreted in terms of initial system. Such approach gives complete description of traveling wave solutions in cases of many polynomial Lienard equations, for example, corresponding to the bifurcation Ltwo-(three-)multiple neutral equilibrium [1], [2].

References. 1. Bogdanov R. I. In: Tr. Semin. Im. I. G. Petrovskogo. 5, 51-84 (1979). (Rus.) 2. Dumortier F., Roussarie R., Sotomayor J. In: Lecture Notes in Mathematics, 1480, Springer ,1991,1-164. Work is supported by grant N 98-01-00483 RFFI