

NICOLA, Ileana Rodica, *HOPF BIFURCATIONS FOR A TIME-DELAYED CANCER CELL POPULATION MODEL*

Abstract: The paper investigates the structural stability of a cancer cell population time-delayed flow, establishing the critical value of the delay parameter that produces Hopf bifurcation. The model is investigated for three sets of values of the parameters. Numerical results are obtained using the software Maple 11.

Keywords: dynamical system, time-delay, stationary point, Hopf bifurcation, quiescent cell population, proliferating cell population