

## **Time-delayed Flow of Hepatocyte Physiology**

**Ileana Rodica NICOLA, Constantin UDRIȘTE and Vladimir  
BALAN**

July 1, 2004

**Abstract -** The paper investigates the structural stability of hepatocyte physiology time-delayed flow, establishing the critical value of the delay parameter that produces the Hopf bifurcation.

**Key words and phrases :** dynamical system, time delay, stationary point, bifurcation

**Mathematics Subject Classification (2000) :** 37G10, 37M20, 37N25, 92C45