CARPATHIAN J. MATH. **22** (2006), No. 1 - 2, 153 - 161

## Controlling chaos of a dynamical system with feedback control

**GHEORGHE TIGAN** 

ABSTRACT. The present work is devoted to control chaotic behavior of a three–dimensional differential system introduced in [8]. We stabilize the chaotic dynamics of the system to the unstable equilibrium points. The Lyapunov function method is employed. Using a linear controller, the system is controlled to a stable state. Numerical illustrations are presented to show the control process.

POLITEHNICA UNIVERSITY OF TIMISOARA DEPARTMENT OF MATHEMATICS, P-ŢA VICTORIEI 2, TIMIŞOARA, ROMANIA E-mail address: gheorghe.tigan@mat.upt.ro