

Parametric analysis and impulsive synchronization of fractional order
newton leipnik systems

許隆結, Lap Mou Tam, Seng Kin Lao, Yuan Kang, Kuang Tai Lin, 陳俊宏, Hsien Keng
Chen

Mechanical Engineering

Engineering

0

Abstract

Abstract: In this paper, the influences of parameters on the dynamics of a fractional-order Newton-Leipnik system are numerically studied. The ranges of the parameters used in this study are relatively broad. The system displays comprehensive dynamic behaviors, such as fixed points, periodic motion (including periodic-3 motion), chaotic motion, and transient chaos. A period-doubling route to chaos is also found.

Keyword : fractional-order
Newton-Leipnik system