Parametric analysis of a fractional-order Newton-Leipnik system

康淵,林廣台,陳俊宏,許隆結,陳獻庚
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：Newton-Leipnik system

fractional-order