Jin, Aiyun; Mao, Beixing; Wang, Dongxiao
Self-adaptive sliding mode synchronization of fractional-order uncertain chaotic Tang system. (Chinese. English summary) [Zbl 07448816]

Summary: Self-adaptive sliding mode synchronization of fractional-order uncertain chaotic Tang system was studied in the paper. The sufficient conditions were arrived for fractional-order uncertain chaotic system based on fractional-order stability theory and self-adaptive sliding mode methods. The conclusion of fractional-order chaotic Tang system was extended to integer-order Tang systems. The conclusion was proved to be correct using numerical simulation examples.

MSC:
93C40 Adaptive control/observation systems
37D45 Strange attractors, chaotic dynamics of systems with hyperbolic behavior

Keywords:
fractional-order chaotic system; sliding mode synchronization; self-adaptive method