

عنوان مقاله:

Sliding mode control for stochastic Markovian jumping systems with actuator saturation

محل انتشار:

اولین کنفرانس ملی الگوریتم های فراابتکاری و کاربردهای آن در علوم و مهندسی (سال: 1393)

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خلاصه مقاله:

This paper deals with the problem of sliding mode control (SMC) for a class of linear uncertain stochastic systems with Markovian switching subject to actuator saturation. A set invariance condition for stochastic Markovian jumping systems with input saturation is identified and the invariant set is determined by solving an LMI optimization problem, which directly incorporates input saturation. Based on this set invariance condition, sliding mode control is proposed so that the state trajectories will enter the domain of the attraction in finite time. Finally, theoretical results are supported by numerical simulations

کلمات کلیدی:

Input saturation, Markovian jumping system, Sliding mode control

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