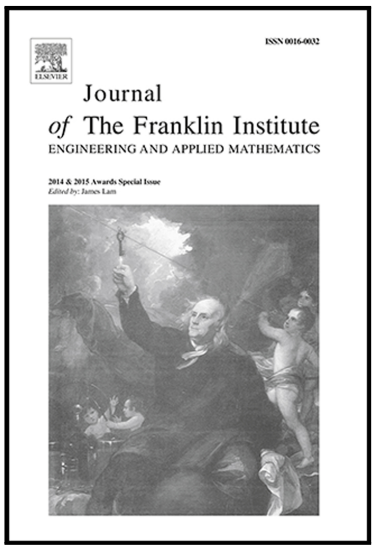

Sliding mode output-feedback control of discrete-time Markov jump systems using singular system method

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Highlights

- Inspired by the approach in [6], a switched Lyapunov function is proposed to analyze and synthesize the controlled MJSs, and sufficient conditions are established to ensure the stochastic stability.
- A novel approach to design the switching surface based on results from a singular discrete-time MJSs is presented.
- Whether the upper bound ϕ of sliding patch is available or not, the reachability conditions are proposed for discrete-time MJSs by utilizing singular system method.