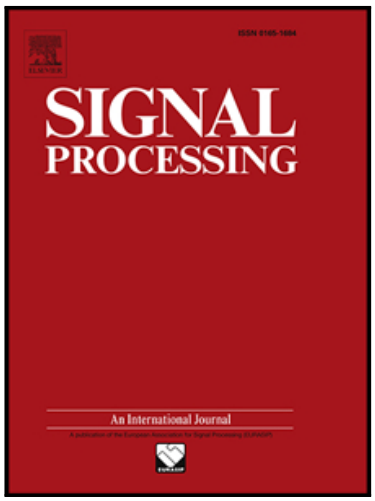

Robust H_∞ Filtering for Markov Jump Systems with Mode-dependent Quantized Output and Partly Unknown Transition Probabilities

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HIGHLIGHTS

- This paper considers the H_∞ filtering for MJSs subject to mode-dependent quantized output and unknown transition probabilities, which are more practical in the realistic systems. Hence, the obtained results of our paper are more robust.
- Compared with those existing studies for MJSs, our study considers more complex conditions: (i) the output quantization signal $y_q(t)$ will make system
- extremely complex to achieve the error dynamics. However, in our paper, the quantization error of the output is transformed into a bounded nonlinearity via a model transformation; (ii) the detail knowledge of transition probabilities is tough to obtain. Hence, more general stochastic stability criteria can be derived through the research of our article.