A Robust Detector for a Class of Uncertain Systems

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Abstract: This paper studies the problem of output feedback stabilization of a class of uncertain systems. We construct a robust detector which provides an approximation of the state of the system. The state trajectory control by state observation for a class of uncertain systems based on output feedback is treated, where the nominal system is linear and the uncertainties are bounded. This work is based on Lyapunov techniques. Furthermore, a numerical example is given to illustrate the applicability of our main result.

Keywords: *Uncertain systems; state observation; output-controller; detector.*

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