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*Singular Value Conditions for System Stability on Disconnected Time Scales.*

Linear switched systems comprise a convenient class of linear systems whose stability in general is difficult to analyze: those whose dynamics depend on time. While there are numerous papers discussing the stability of switched systems evolving over  $\mathbb{R}$  and  $\mathbb{Z}$ , fairly little has been done in the context of time scale domains.

In this talk, we discuss some recent developments which yield sufficient conditions for global stability of a switched system via the existence of common quadratic Lyapunov functions (CQLFs). While the majority of the literature concerning CQLFs analyzes particular classes of switched systems and their inter-related properties (i.e., normal, pairwise commuting, simultaneously diagonalizable/triangularizable systems), the theorems presented in this talk diverge from the usual and imply the existence of a CQLF on a system by system basis. (Received February 11, 2014)