GENERALIZED EXPONENTIALLY STABLE LINEAR TIME-VARYING DISCRETE BEHAVIORS*  

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Dedicated to Dr. Vasile Drăgan on the occasion of his 70th anniversary  

Abstract  
This paper presents a new approach to formulating exponential behaviors like stability/instability for the linear time-varying systems and for the adjoint one. The classical concept of uniform exponential stability is generalized. Using this generalized concepts, some results extending existing uniform exponential stability conditions for linear time-varying systems are derived. As special cases for these results, some conditions are derived for the adjoint system. A characterization of the generalized concepts in terms of Lyapunov sequences is also given. Also, an example is included to further illustrate the connection with the classical concept of uniform exponential stability.  

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