

Stabilization of Fractional Exponential Systems Including Delays.

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Abstract: This paper analyzes the BIBO stability of fractional exponential delay systems which are of retarded or neutral type. Conditions ensuring stability are given first. As is the case for the classical class of delay systems these conditions can be expressed in terms of the location of the poles of the system. Then, in view of constructing robust BIBO stabilizing controllers, explicit expressions of coprime and Bézout factors of these systems are determined. Moreover, nuclearity is analyzed in a particular case.

Keywords:

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