

Notes on μ and ℓ_1 Robustness Tests.

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Abstract: An upper bound for the complex structured singular value related to a linear time-invariant system over all frequencies is given. It is in the form of the spectral radius of the \mathcal{H}_∞ -norm matrix of SISO input-output channels of the system when uncertainty blocks are SISO. In the case of MIMO uncertainty blocks the upper bound is the ∞ -norm of a special non-negative matrix derived from \mathcal{H}_∞ -norms of SISO channels of the system. The upper bound is fit into the inequality relation between the results of μ and ℓ_1 robustness tests.

Keywords:

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