

Block Bialternate Sum with Applications to Computation of Stability Bounds.

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Abstract: The block bialternate sum for partitioned matrices is introduced in this paper and its basic properties are established. Using the block bialternate sum, exact values of the maximal stability range of the parameter in integral control systems and singularly perturbed systems as also the minimal range of the gain parameter in a high-gain feedback system are determined. The proposed method is claimed to be computationally superior to all other existing methods.

Keywords:

AMS Subject Classification: