

Optimal Decentralized Control Design with Disturbance Decoupling.

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Abstract: In this paper we present an input-output point of view for the problem of closed loop norm minimization of stable plants when a decentralized structure and a disturbance decoupling property are imposed on the controller. We show that this problem is convex and present approaches to its solution in the optimal ℓ_1 sense in the nontrivial case which is when the block off-diagonal terms of the plant have more columns than rows.

Keywords:

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