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LMI-based controller synthesis: A unified formulation and solution. (English) Zbl 0921.93012
Int. J. Robust Nonlinear Control 8, No. 8, 669-686 (1998).

A unified approach to linear controller synthesis employs several linear matrix inequality conditions to represent control specifications. Also multi-objective performance measures leading to controller design by convex optimization are provided. No solved example is presented.

The robust control of certain linear plants, the only remaining theme of linear control with fixed controllers, has become a part of numerical mathematics. The paper is one of many confirming this.

Reviewer: [A.Vaněček \(Praha\)](#)

MSC:

93B50 Synthesis problems
15A39 Linear inequalities of matrices
93B51 Design techniques (robust design, computer-aided design, etc.)

Cited in **41** Documents

Keywords:

bilinear matrix inequalities; parametrized controllers; linear controller synthesis; linear matrix inequality; convex optimization

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