

Robust Control Of Sampled Data Systems

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Summary

The authors present robust stability bounds for sampled data systems. The bounds are derived for the general case of additive perturbation in a system, and the control gain matrices for continuous time systems under discrete state feedback control. They then present a numerical controller design algorithm based on the derived bounds. Examples are used for demonstration.

References:

1. BERNSTEIN DS, 1989, SYST CONTROL LETT, V13, P217
2. CAO DQ, 1989, INT J SYST SCI, V50, P151
3. CHAPELLAT H, 1989, IEEE T AUTOMAT CONTR, V34, P306
4. DOYLE JC, 1984, ONR HON WORKSH
5. EZZINE J, 1995, INT J SYST SCI, V26, P1951
6. GRACE A, 1992, OPTIMIZATION TOOLBOX
7. KOLLA SR, 1989, INT J CONTROL, V26, P713
8. WU HS, 1993, INT J SYST SCI, V24, P265
9. YAZ E, 1988, IEEE T AUTOMAT CONTR, V33, P952
10. YEDAVALLI RK, 1990, RECENT ADV ROBUST CO, P109

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