

## Robust and Nonrobust Tracking.

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*Abstract:* For zero steady state tracking error it is necessary to include  $n$  integrators in the control loop in the case of reference signal generated by  $n$  integrators. This result can be generalized to arbitrary  $n$  unstable modes of the reference generator according to the “internal model principle”. This paper shows an alternative solution of the asymptotic reference signal tracking problem using feedforward. The solution is not robust but gives a feedback controller with reduced complexity.

Robust tracking structure with error driven controller and nonrobust control structure with feedforward are also compared with respect to quadratic criteria. The alternative solution with feedforward is not asymptotically robust but sometimes gives better performance with respect to quadratic criteria.

*Keywords:*

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