

# Computer Exercise 3

## EL2520 Control Theory and Practice

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### Suppression of disturbances

The weight is

$$W_S(s) = \dots$$

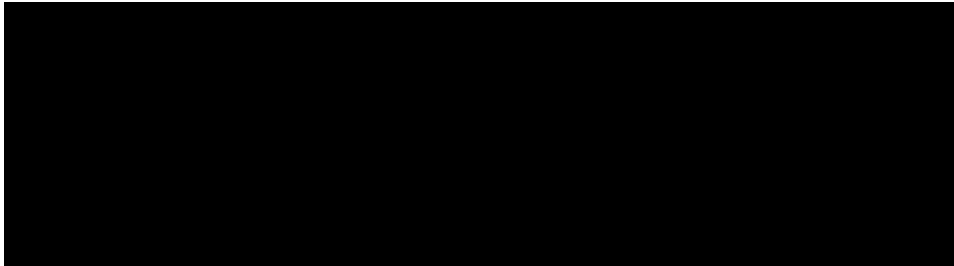


Figure 1: Simulation results

What amplification is required for a P-controller to get the same performance, and what are the disadvantages of such a controller?

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### Robustness

What is the condition on  $T$  to guarantee stability according to the small gain theorem?

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The weights are

$$W_S(s) = \dots$$

$$W_T(s) = \dots$$



Figure 2: Simulation results

Compare the results to the previous simulation

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## Control signal

The weights are

$$W_S(s) = \dots$$

$$W_T(s) = \dots$$

$$W_U(s) = \dots$$

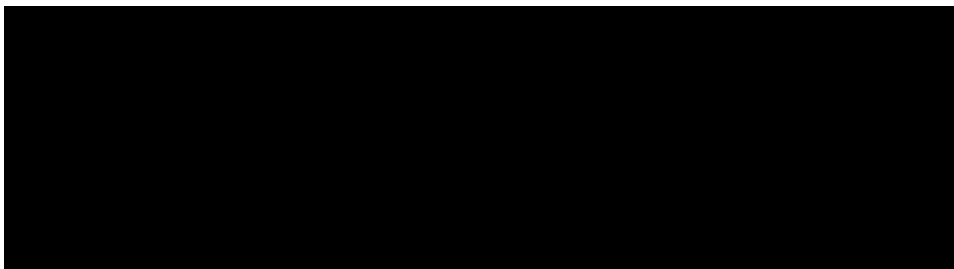


Figure 3: Simulation results

Compare the results to the previous simulations

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