Computer Exercise 1
EL2520 Control Theory and Practice

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Disturbance attenuation

How should the extra poles be chosen in exercise 4.2.1? Motivate!

. . . . . .
. . . . . .

The feedback controller in exercise 4.2.2 is

$$F_y(s) = \dots$$

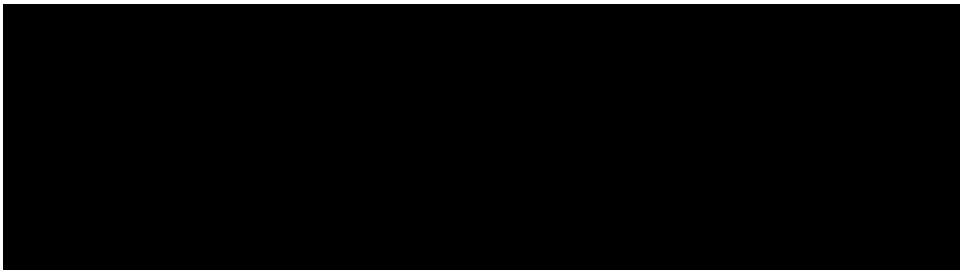

Figure 1: Step disturbance, exercise 4.2.2

The feedback controller and prefilter in exercise 4.2.3 is

$$F_y(s) = \dots$$

$$F_r(s) = \dots$$

Did you manage to fulfill all the specifications? If not, what do you think makes the specifications difficult to achieve?

. . . . . .
. . . . . .

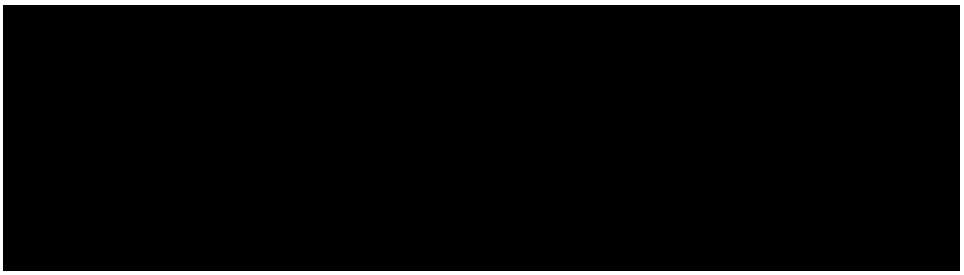

Figure 2: Reference step, exercise 4.2.3

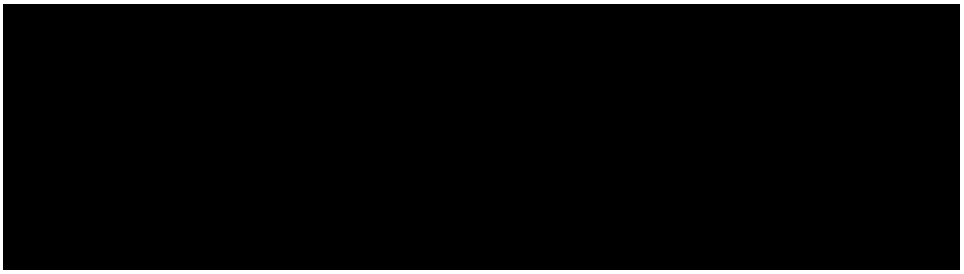

Figure 3: Control signal for a disturbance or a reference step (plus a combination of these)

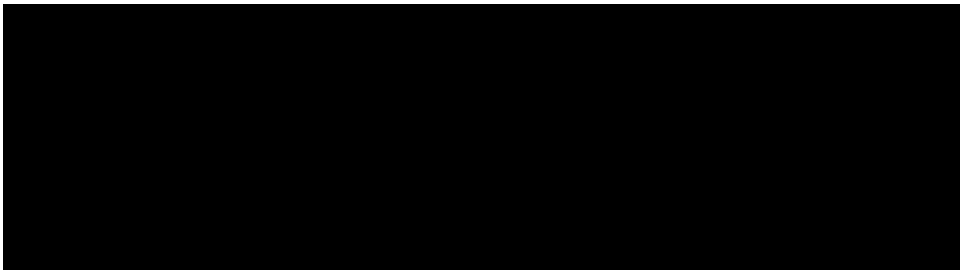

Figure 4: Bode diagram of sensitivity and complementary sensitivity functions, exercise 4.2.4