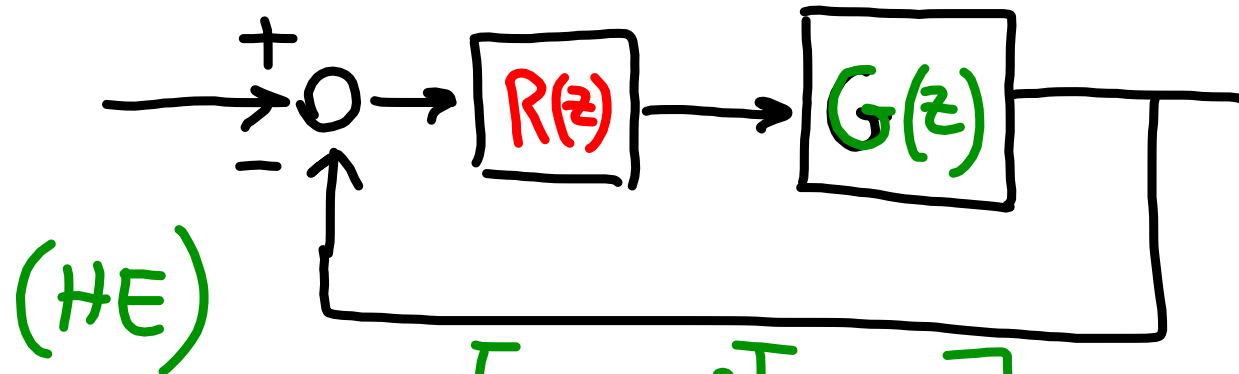
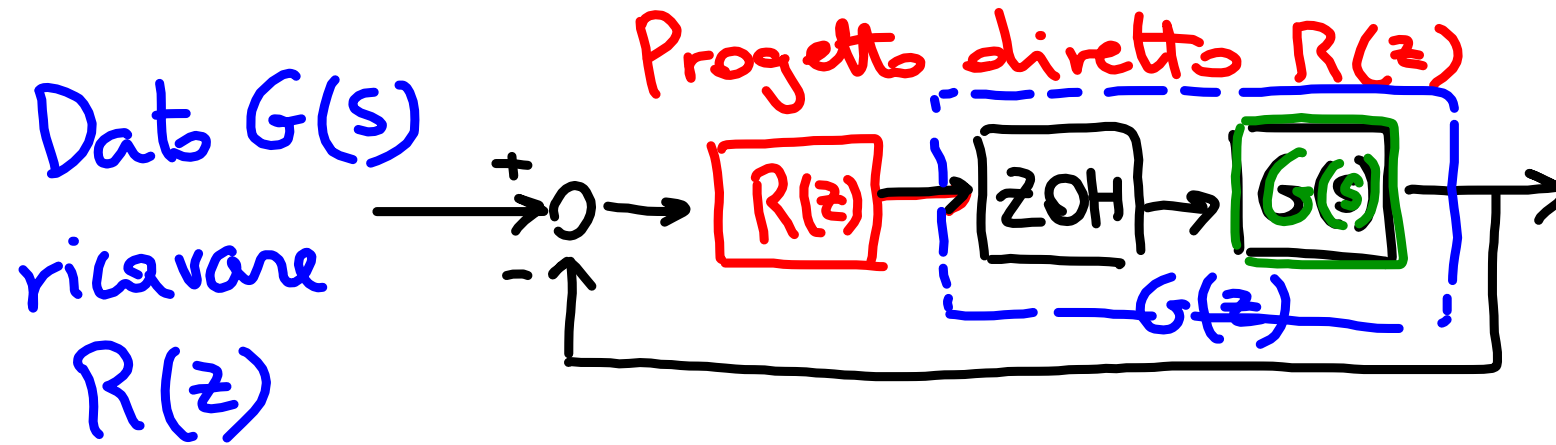


13

[ 2 3 4 ~~5~~ 6 7 8 9 10 11 12 ]

X X



(HE)

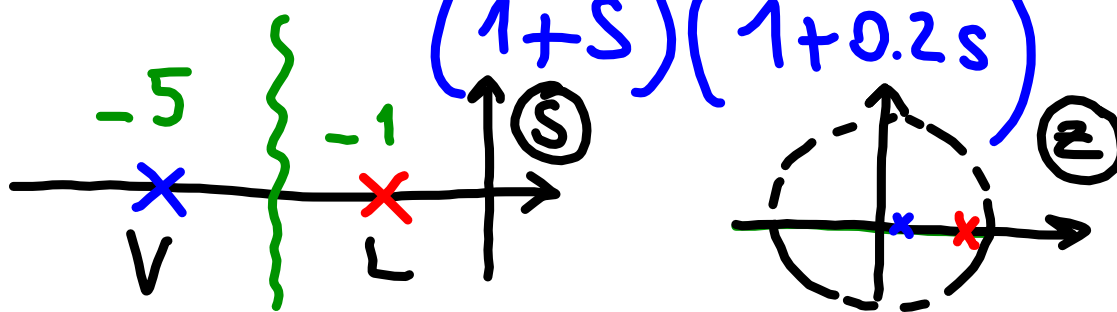
$$G(z) = Z \left[ \frac{1 - e^{-sT}}{s} G(s) \right] = (1 - z^{-1}) Z \left[ \frac{G(s)}{s} \right]$$

$$G(z) = \frac{0.004117z + 0.003372}{(z - 0.9048)(z - 0.6065)}$$

"Tipo zero"

$$G(s) = \frac{0.2}{(1+s)(1+0.2s)}$$

"Tipo zero"



$$z = e^{sT}$$

$$R(z) = K \frac{z - z_0}{z - z_p} = K \frac{z - 0.9848}{z - 1}$$

polo lento

$e_r = 0$

1.  $e_r = 0 \Rightarrow z_p = 1$
  2.  $T_a \leq 2.5s$
  3.  $S\% \leq 5\% (\delta \geq 0.69)$
- } K

$$K = 10.89$$

$$R(z) = 10.89 \frac{z - 0.9048}{z - 1}$$

$$\left\{ \begin{array}{l} T_d \approx 1.88 \text{ s} \\ S\% = 4.9\% \end{array} \right.$$

OK!