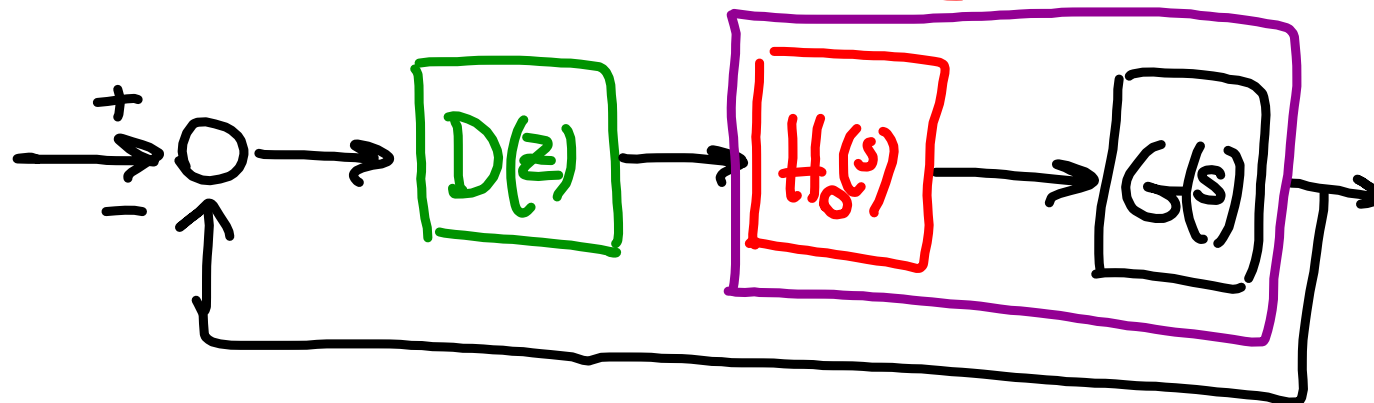
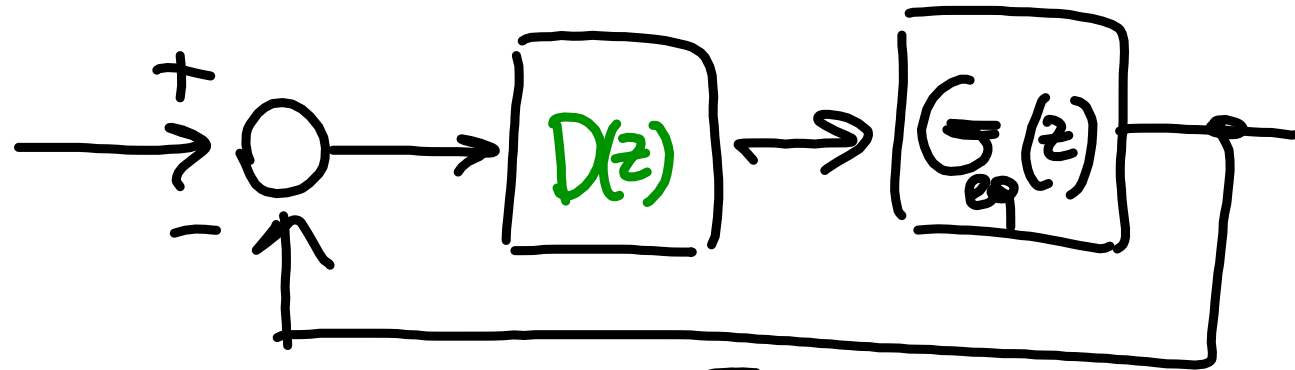


Progetto Diretto



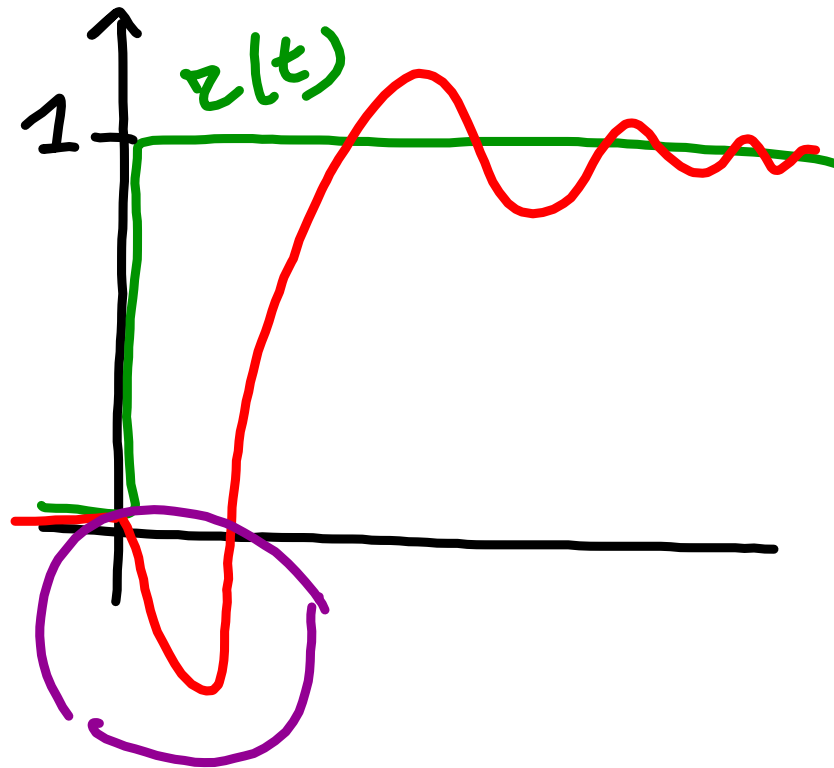
$$D(z) = K \frac{z - z_0}{z - z_p}$$

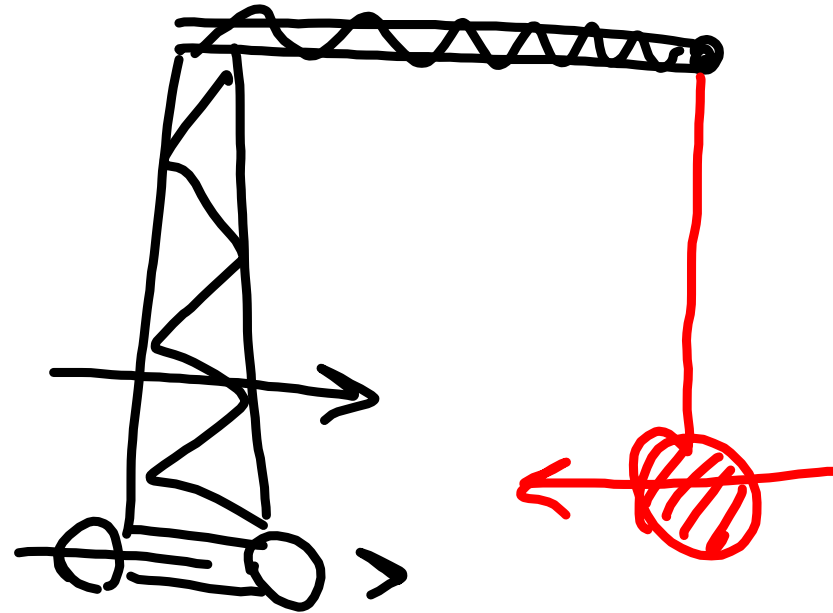


$$G_{eq}(z) = Z_1 [H_0(s) G(s)]$$

Sistemi a fase non minima

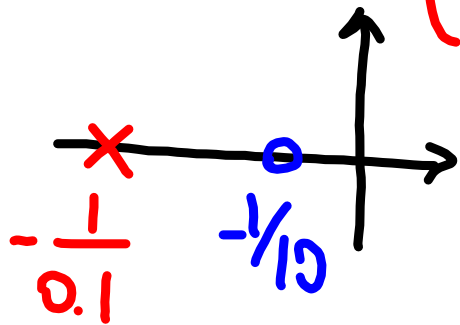
- zeri "instabili"
(parte reale positiva)
- hanno una risposta in
controtendenza iniziale nella fase





anticipatrice

$$R(s)G(s) = \frac{\cancel{(1+10s)}}{(1+0.1s)} \cdot 0.2 \frac{(1-2 \cdot s)}{s \cancel{(1+10s)} (1+0.1s)}$$



$$\tau_1 > \tau_2$$

↑
più 'lento'

$$R(s) = \left\{ \begin{array}{l} s = \frac{z}{T} \frac{z-1}{z+1} \text{ (TU)} \rightarrow R_1(z) \\ z \left[\frac{1-e^{-sT}}{s} R(s) \right] \text{ (ZOH)} \rightarrow R_2(z) \\ (1-z^{-1}) z \left[\frac{G(s)}{s} \right] \text{ (HE)} \end{array} \right.$$