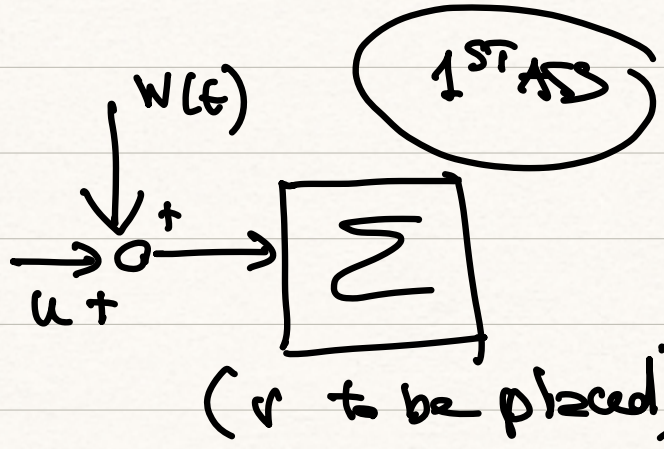
EXTENDED ESTIMATOR — EXTRA COMMENTS

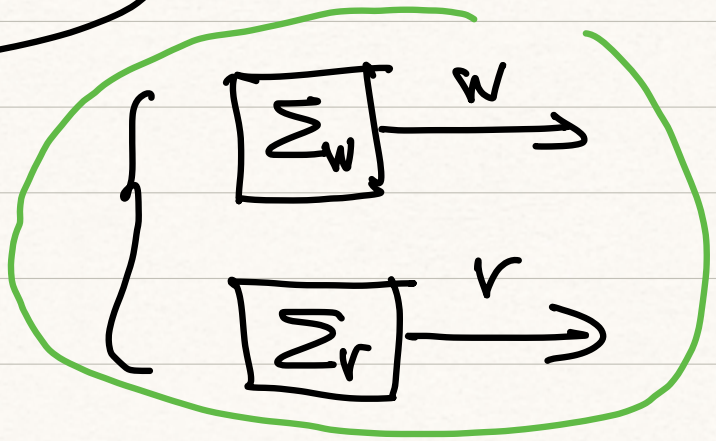
setting

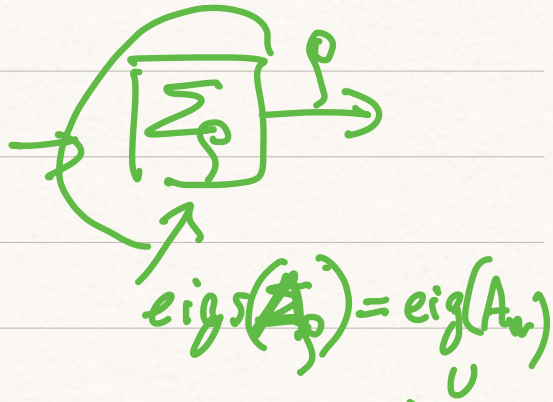
Noise w(t) (REJECT)

Reference r(t) (TRACK)

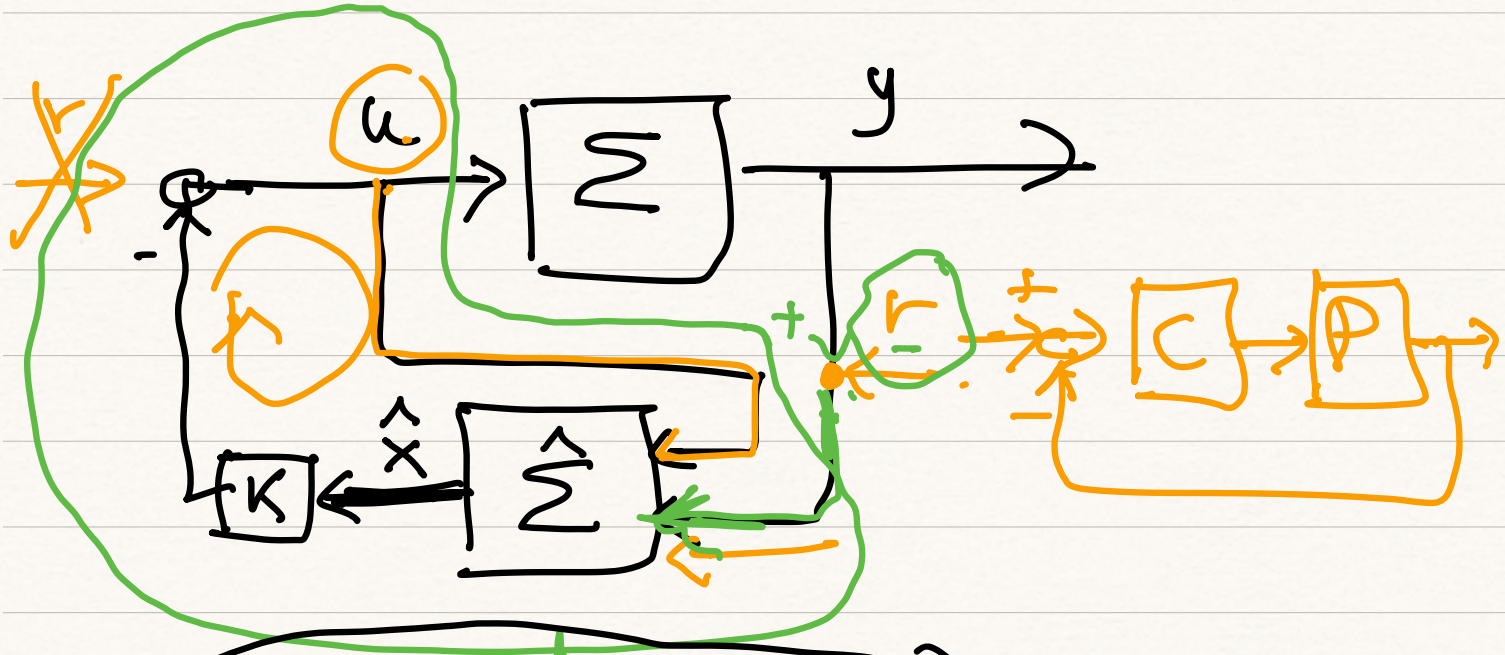


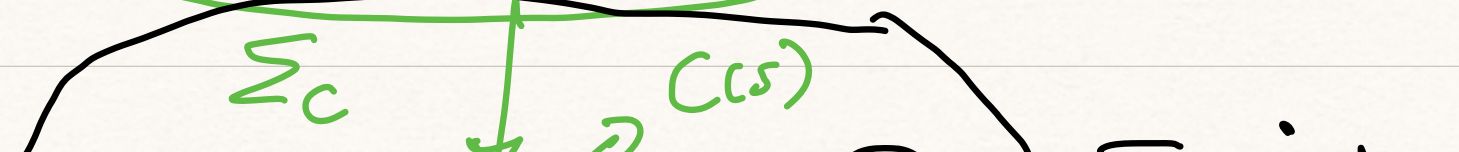
2nd ASS ∃ exosmodels

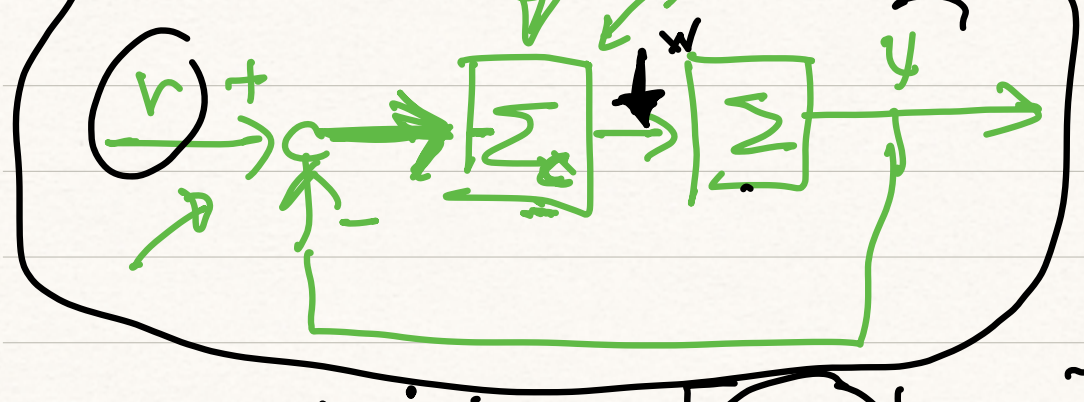




STRATEGY (∪ IMP) → INCLUDE $\Sigma_{r,w}$ in "controller"







$\Sigma_p \quad \dot{x}_p = A_p x_p$

$p \Rightarrow y_p = C_p x_p$

$$\begin{pmatrix} \dot{\hat{x}}_p \\ \dot{\hat{x}} \end{pmatrix} = \left[\begin{array}{c|c} A_p & 0 \\ \hline BC_p & A \end{array}\right] \begin{pmatrix} \hat{x}_p \\ \hat{x} \end{pmatrix}$$

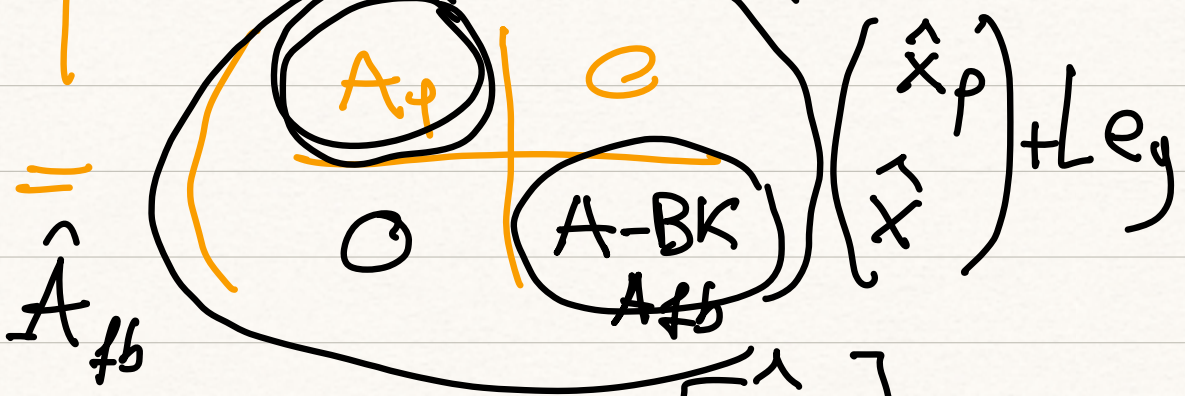
$$+ \begin{bmatrix} L_1 \\ L_2 \end{bmatrix} e_y + \begin{bmatrix} 0 \\ B \end{bmatrix} u$$

$$u = -\left[\begin{array}{c:c} C_p & K \end{array}\right] \begin{pmatrix} \hat{x}_p \\ \hat{x} \end{pmatrix}$$

$- \hat{p}(t)$

$$\begin{pmatrix} \dot{\hat{x}}_p \\ \dot{\hat{x}} \end{pmatrix} = \left[\begin{array}{c|c} A_p & 0 \\ \hline BC_p & A \end{array}\right] - \left[\begin{array}{c|c} 0 & 0 \\ \hline BC_p & BK \end{array}\right] \begin{pmatrix} \hat{x}_p \\ \hat{x} \end{pmatrix}$$

$$+ L e_y$$



$$u = -\begin{bmatrix} C_p & | & K \end{bmatrix} \begin{bmatrix} \hat{x}_p \\ \hat{x} \end{bmatrix}$$

$$\frac{U(s)}{E_y(s)} = -\begin{bmatrix} C_p & | & K \end{bmatrix} \left(sI - \hat{A}_{fb} \right)^{-1} L$$

Same situation of IMP in "s"

Poles $(r) \subseteq$ eigs(A_p) "=" poles $\frac{U(s)}{E_y(s)}$

By contr. ||

poles $C(s)$