

$$\begin{cases} \dot{x}(t) &= A x(t) + B u(t) \\ y(t) &= C x(t) \end{cases}$$

 π_R

$$\begin{cases} \dot{\hat{x}}(t) &= \hat{A} \hat{x}(t) + \hat{B} u(t) \\ y_r(t) &= \hat{C} \hat{x}(t) \end{cases}$$

Control synthesis
(decomposition)

Offline

Online

$$\begin{cases} \dot{x}(t) &= A x(t) + B u(t) \\ y(t) &= C x(t) \end{cases}$$

 $y(t)$

Reduced Luenberger Observer

 $\tilde{\hat{x}}(t)$
 $u(t)$

\hat{x} -dependent controller
 $u(\hat{x})(t)$

