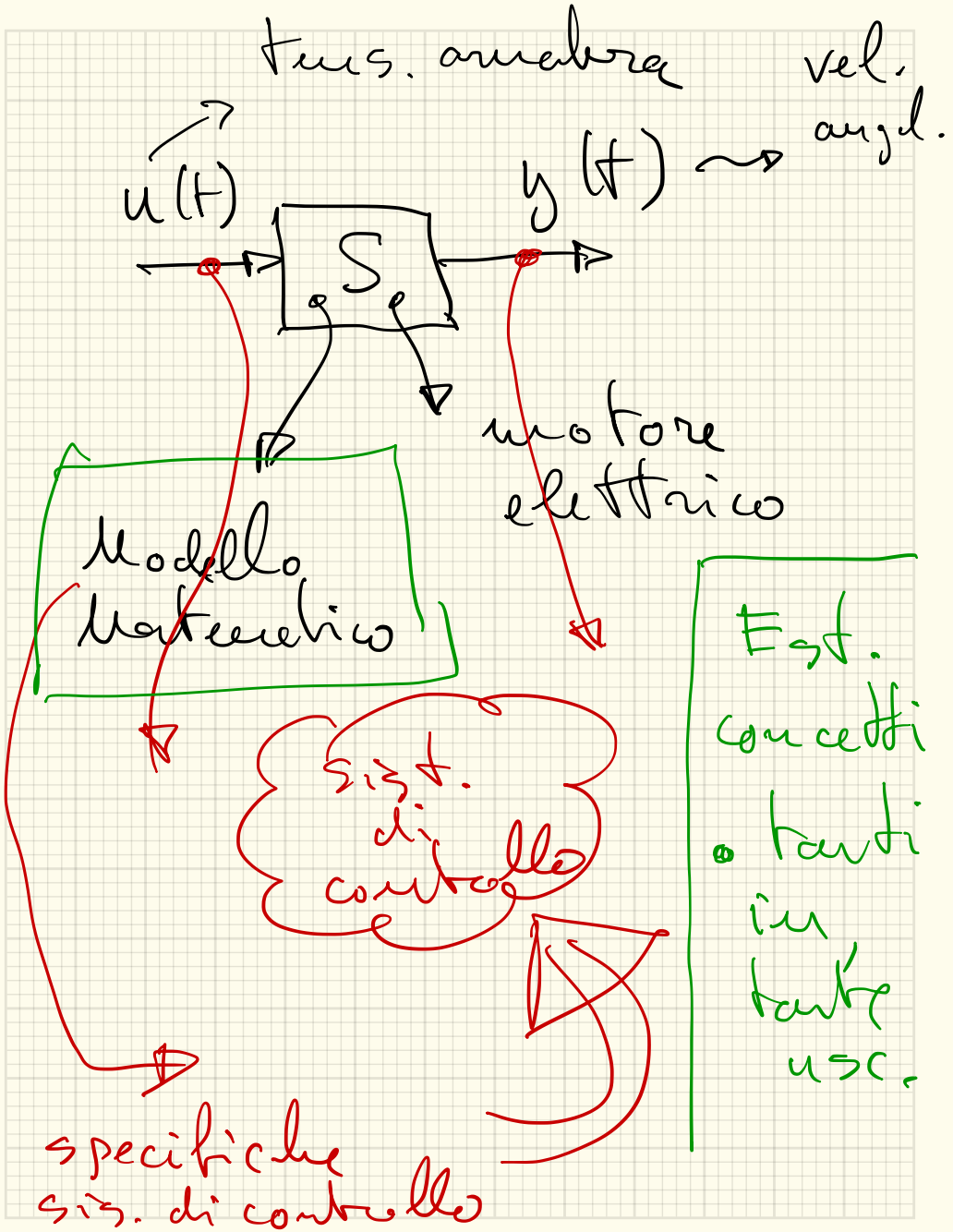
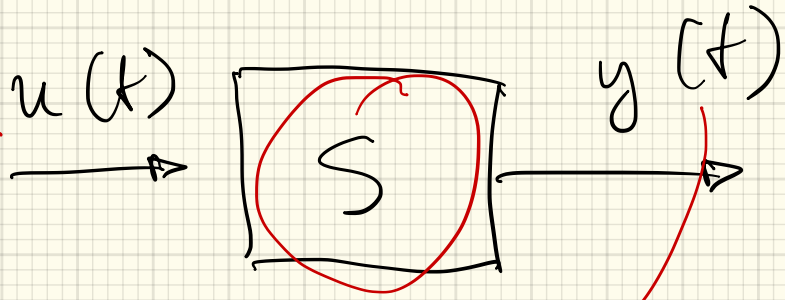
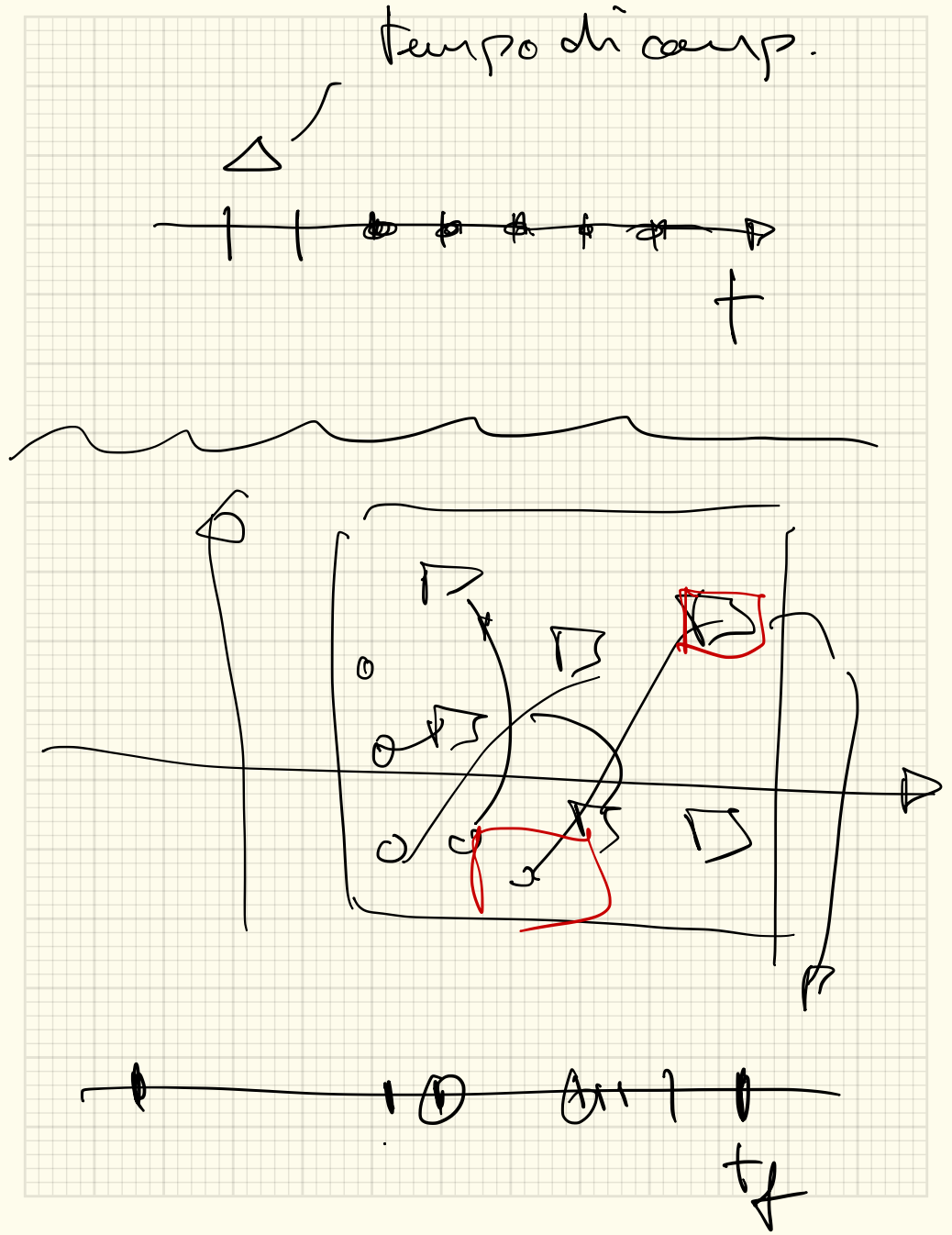
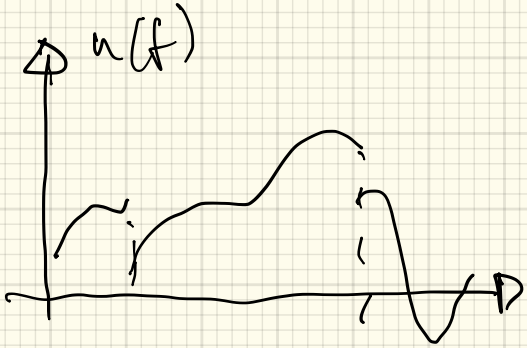

Trans. armatura
vel. angol.
u(t)
y(t)
S
motore elettrico
Modello Matematico
Sist. di controllo
Est. concetti
tanti in tante usc.
specifiche sis. di controllo

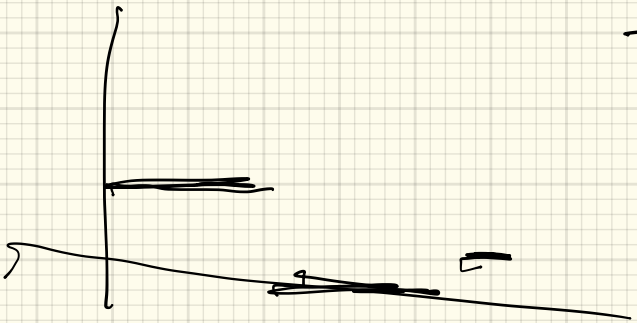


sequenze di numeri

- costruire il modello a partire dai dati
- analizzare la qualità del modello
- analizzare le prop. del sistema costruito

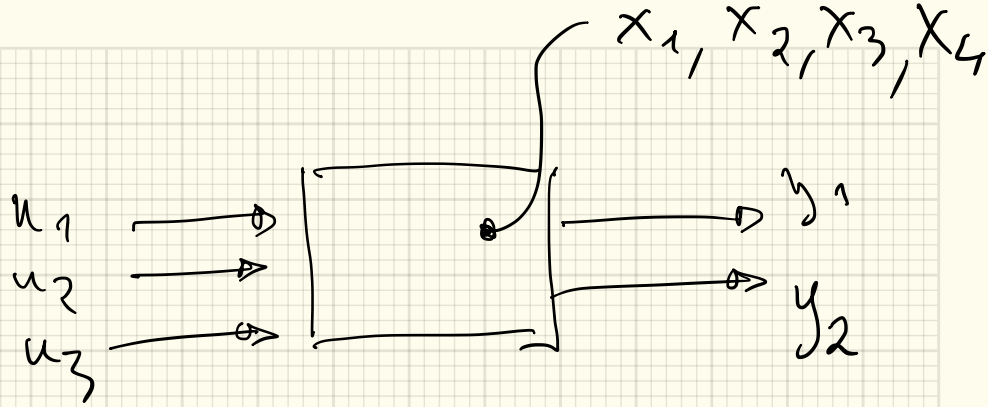

tempo di comp.
t
t+Δt

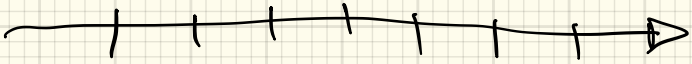




$U = \{0, 1\}$

$\Omega = \{$ funz. costanti a tratti $\}$





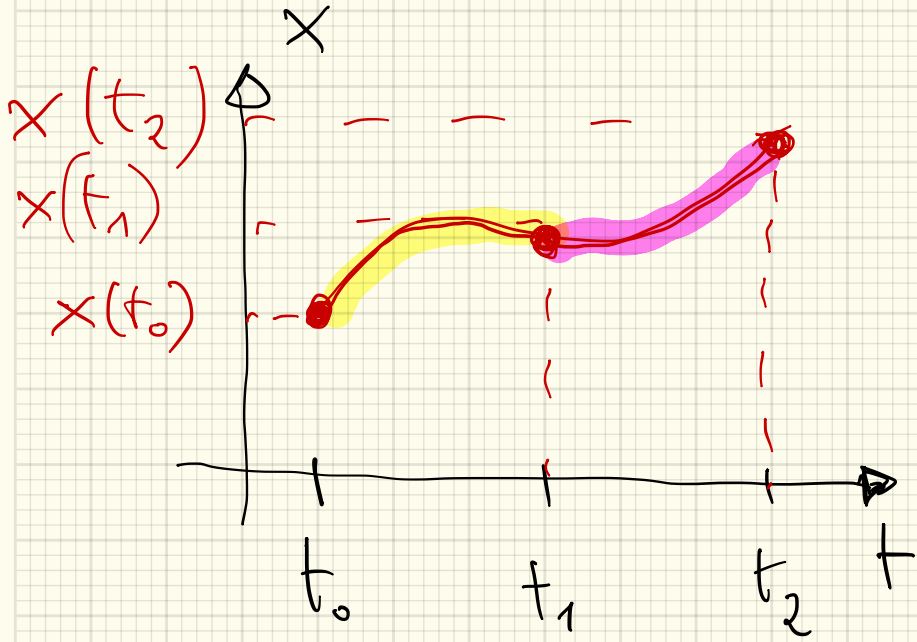
$T \equiv \mathbb{Z}$

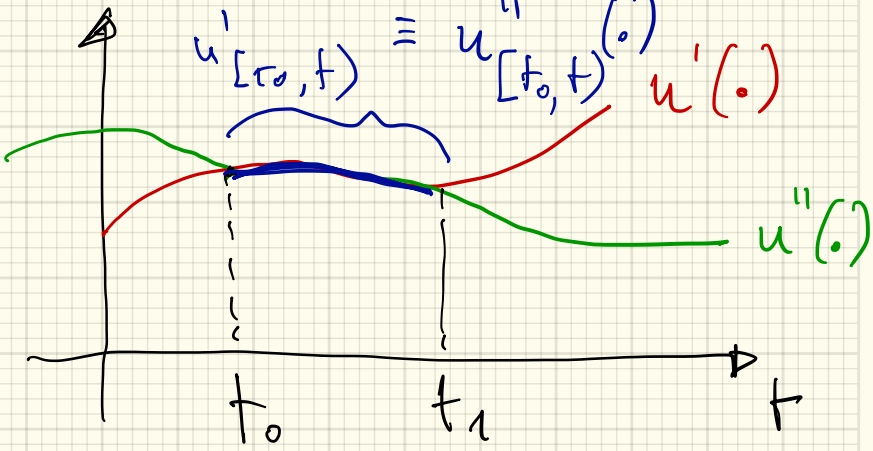
Esempio

$x_2(3) = 5$

$u_1(3) = -27$

Quanto valgono
$x_1(4)$
$x_2(4)$?
$x_3(4)$
$x_4(4)$


x
x(t2)
x(t1)
x(t0)
t0
t1
t2
t

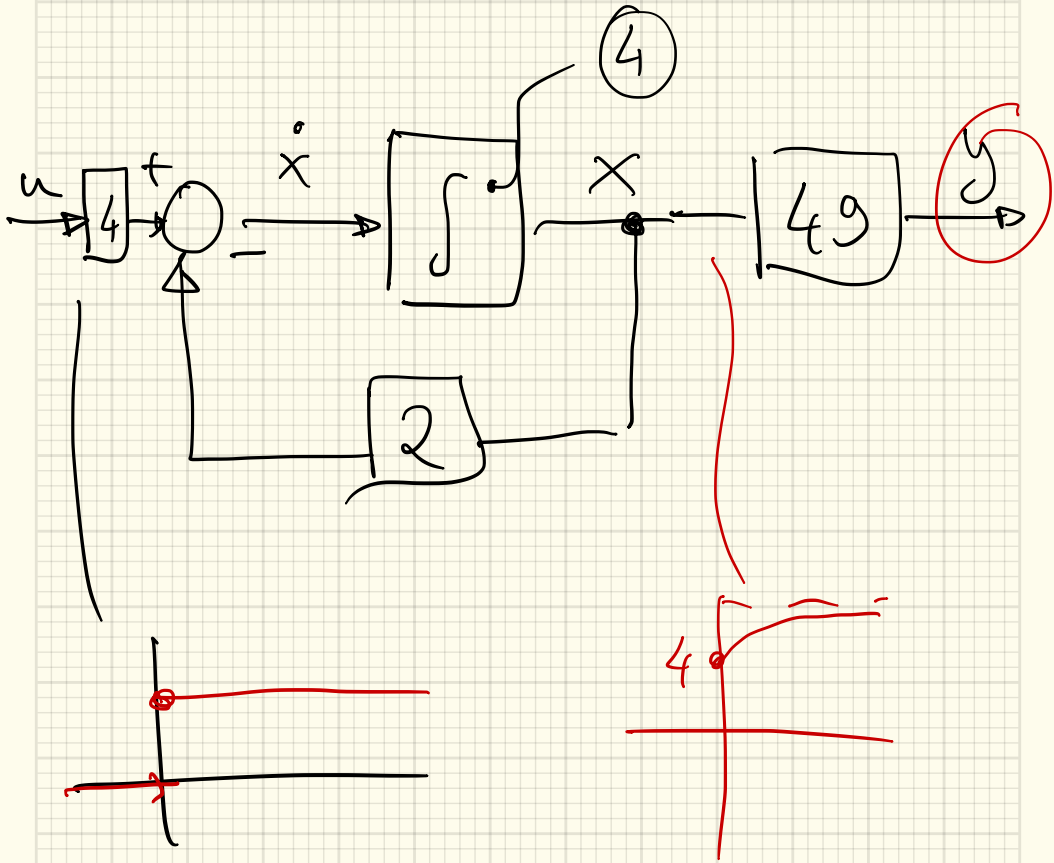

u'[t0,t) ≡ u''[t0,t)(·)
u'(·)
u''(·)
t0
t1
t

$$\begin{cases} \dot{x} = -2x + 4 \cdot u \\ y = 49 \cdot x \end{cases}$$

$$x(0) = 4$$

$$x(t) = \mathcal{L}^{-1}\left\{ (sI - A)^{-1} B\, U(s) \right\} + \mathcal{L}^{-1}\left\{ (sI - A)^{-1} x(0) \right\}$$

$$= K e^{-2t} \cdot 4 \cdot$$


4
u
4
+
−
ẋ
∫
x
49
y
2