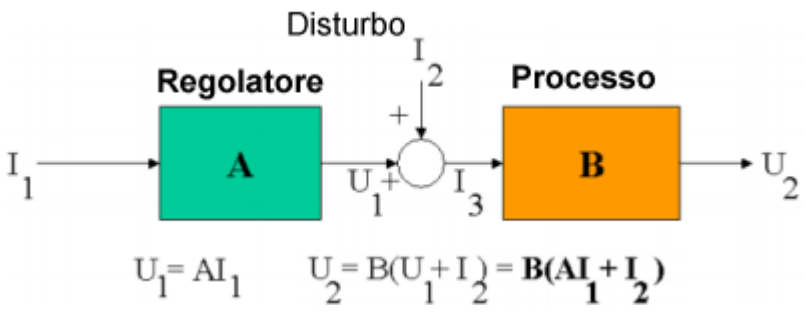
Sistema ad anello aperto



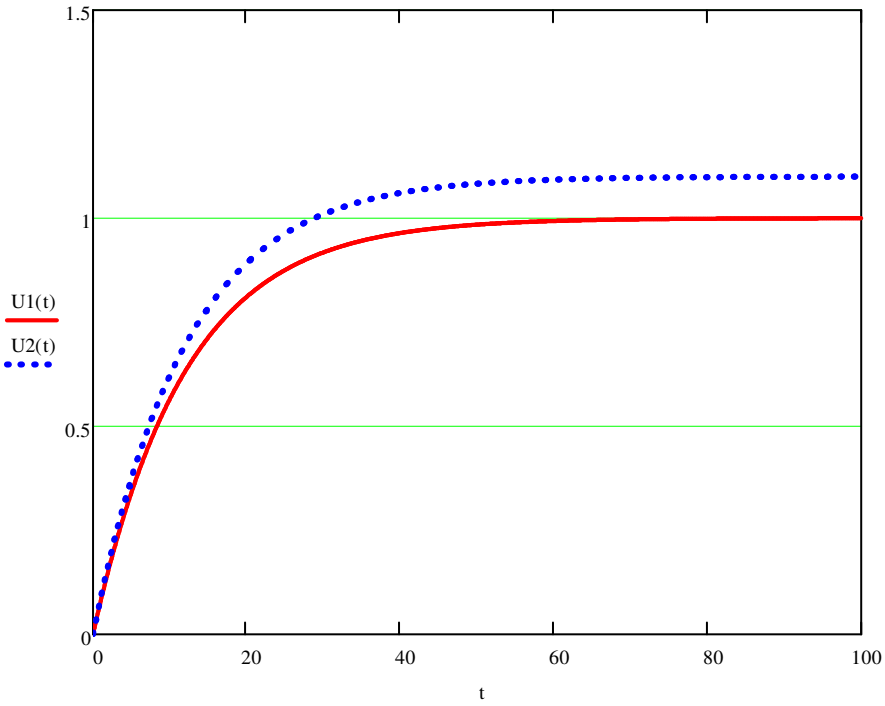
Effetto di un disturbo in ingresso al processo controllato

$tau := 12 \qquad Ao := 1 \qquad t := 0, 0.1 .. 100$

$Gf(s) := \frac{Ao}{1 + s \cdot tau} \qquad E(s) := \frac{1}{s}$ (Gradino) $\qquad D(s) := \frac{0.1}{s}$

$U1(s) := E(s) \cdot Gf(s) \qquad U1(t) := U1(s) \text{ invlaplace } \rightarrow 1 - e^{-\frac{1}{12} \cdot t}$

$U2(s) := (E(s) + D(s)) \cdot Gf(s) \qquad U2(t) := U2(s) \text{ invlaplace } \rightarrow 1.1 - 1.1 \cdot e^{-0.083333333333333333333 \cdot t}$



Il disturbo fa aumentare la grandezza controllata