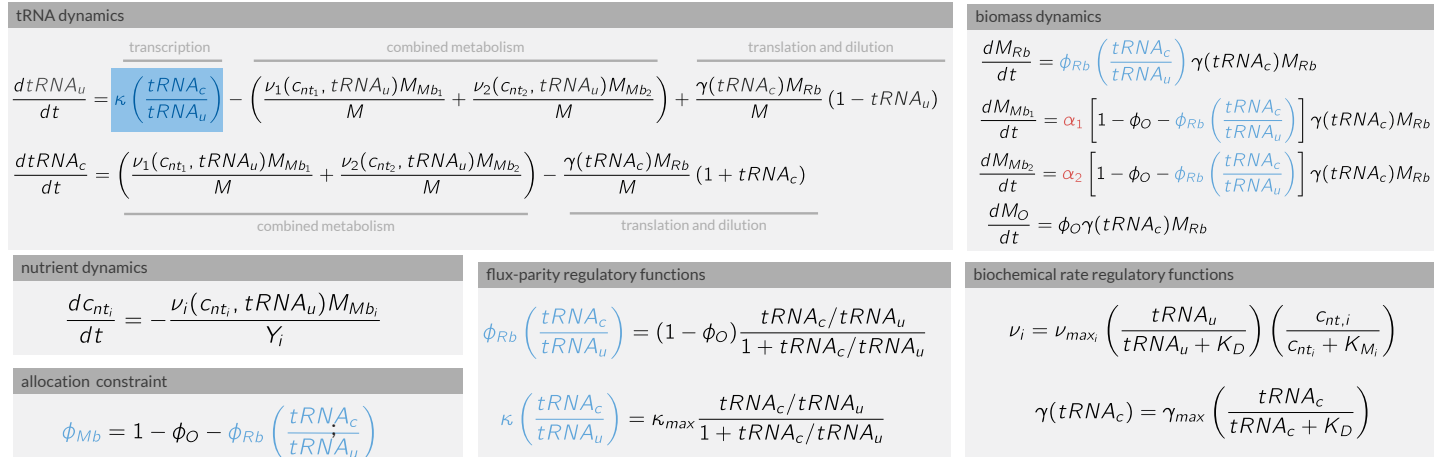


(A)

ppGpp regulatory circuit elements

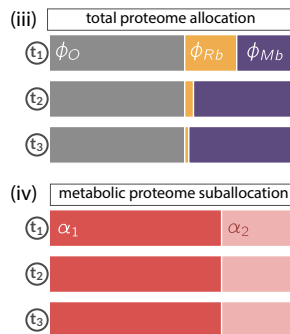
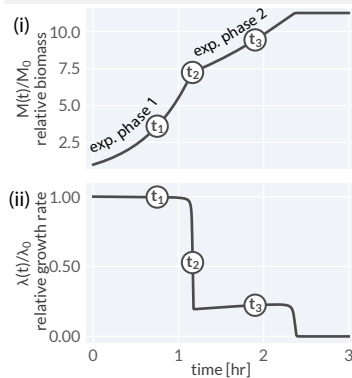
metabolic suballocation regulatory elements



(B)

static metabolic suballocation

$$\alpha_1 = \text{Constant}; \alpha_2 = 1 - \alpha_1$$



(C)

dynamic metabolic suballocation

$$\alpha_1 = \frac{(c_{nt1}/K_{A1})^n}{1 + (c_{nt1}/K_{A1})^n}; \alpha_2 = 1 - \alpha_1$$

