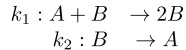


CRN



$$\begin{aligned} \frac{d[A]}{dt} &= -k_1[A][B] + k_2[B] \\ \frac{d[B]}{dt} &= k_1[A][B] - k_2[B] \end{aligned}$$

GRN

$$\begin{aligned} \frac{dg_1}{dt} &= k_{1s} \cdot \frac{1}{1+k_{13}g_3} - k_{1d}g_1 \\ \frac{dg_2}{dt} &= k_{2s} \cdot \frac{k_{21}g_1}{1+k_{21}g_1} - k_{2d}g_2 \\ \frac{dg_3}{dt} &= k_{3s} \cdot \frac{k_{31}g_1}{1+k_{31}g_1} \cdot \frac{k_{32}g_2}{1+k_{32}g_2} - k_{3d}g_3 \end{aligned}$$

ERN

$$\begin{aligned} \frac{dN}{dt} &= aN - bNP \\ \frac{dP}{dt} &= -cP + bNP \end{aligned}$$

$$\frac{dN_i}{dt} = r_i N_i + \sum_{j=1}^n a_{ij} N_i N_j$$