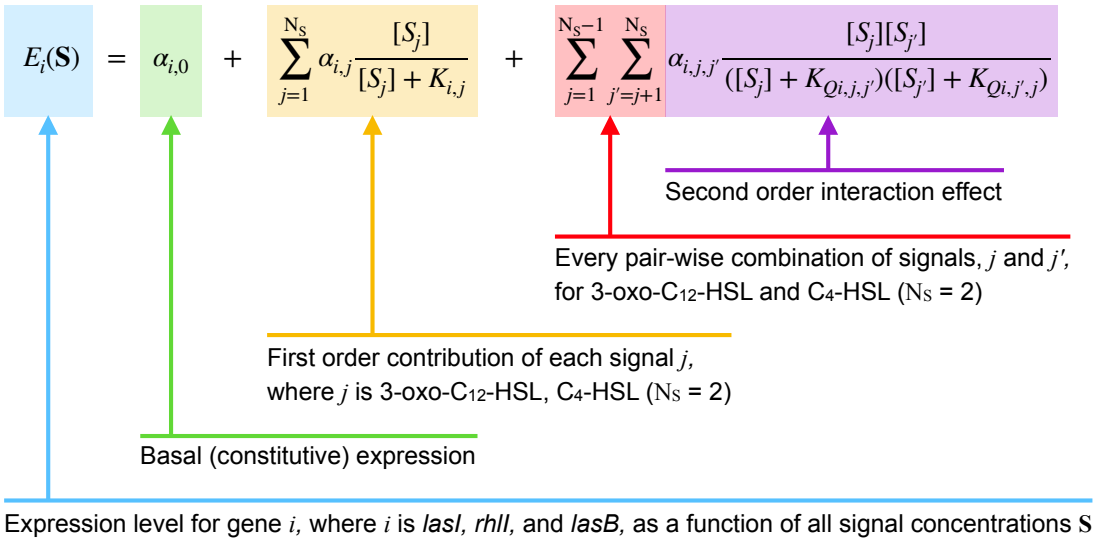
$E_i(\mathbf{S}) = \alpha_{i,0} + \sum_{j=1}^{N_S} \alpha_{i,j} \frac{[S_j]}{[S_j] + K_{i,j}} + \sum_{j=1}^{N_S-1} \sum_{j'=j+1}^{N_S} \alpha_{i,j,j'} \frac{[S_j][S_{j'}]}{([S_j] + K_{Qi,j,j'})([S_{j'}] + K_{Qi,j',j})}$
(2)
Second order interaction effect
Every pair-wise combination of signals, j and j', for 3-oxo-C_{12}-HSL and C_4-HSL (N_S = 2)
First order contribution of each signal j, where j is 3-oxo-C_{12}-HSL, C_4-HSL (N_S = 2)
Basal (constitutive) expression
Expression level for gene i, where i is *lasI*, *rhlI*, and *lasB*, as a function of all signal concentrations $\mathbf{S}$