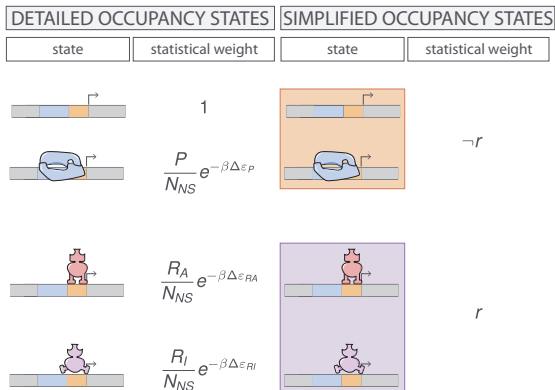
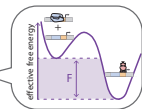


(A)



SCALING FUNCTION

$$\text{fold-change} = \frac{1}{1 + e^{-\beta F}}$$



SCALING VARIABLE

$$F = k_B T \left[-\log p_{\text{active}}(c) - \log \frac{R}{N_{NS}} + \frac{\Delta \varepsilon_{RA}}{k_B T} \right]$$

inducer concentration
repressor copy number
DNA binding energy

(C)

