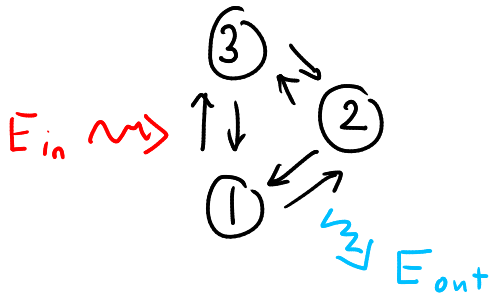


as $t \rightarrow \infty$:
NESS

$$\dot{W} = \underbrace{P_{in} - P_{out}}_{P_{diss}} = T \dot{I} > 0$$

example: light sensitive protein



$$t \rightarrow \infty: J_{31}(t), J_{23}(t), J_{12}(t)$$

$$\rightarrow J$$

$$J \propto (1 - e^{-\beta(E_{in} - E_{out})})$$

if $E_{in} > E_{out} \Rightarrow J > 0$ clockwise current

$$\dot{W} = \frac{1}{2} \sum_{nm} J_{nm}(t) W_{nm} = J_{31}(t) E_{in} - J_{12}(t) E_{out}$$

$$\xrightarrow{t \rightarrow \infty} = \underbrace{J E_{in}}_{P_{in}} - \underbrace{J E_{out}}_{P_{out}}$$

$$P_{in} - P_{out} = \underbrace{T \dot{I}}_{P_{diss}} > 0$$