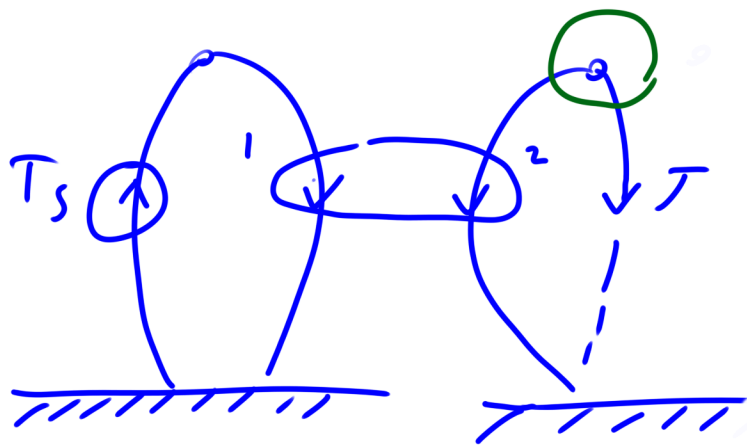


RW 6.1 a



$$\begin{bmatrix} \Omega_1 \\ \tau_1 \end{bmatrix} = \begin{bmatrix} -1/N & 0 \\ 0 & N \end{bmatrix} \begin{bmatrix} \Omega_2 \\ \tau_2 \end{bmatrix}$$

$$\tau_1 = N\tau_2 \Rightarrow \tau_2 = \frac{1}{N}\tau_1$$

$$\Omega_1 = -\frac{1}{N}\Omega_2 \Rightarrow \Omega_2 = -N\Omega_1$$

$$\frac{d\Omega_1}{dt} = \frac{1}{N}\tau_1 \Rightarrow \frac{d\Omega_2}{dt} = -\frac{1}{N}\tau_1 = -\frac{1}{N^2}\tau_1$$

$$\tau_1 = -\tau_2$$

$$\Omega_1 = \Omega_2$$

$$-N \frac{d\Omega_1}{dt} = -\frac{1}{N}\tau_1$$

$$\frac{d\Omega_1}{dt} = \frac{1}{N^2}\tau_1$$

$$\frac{d\Omega_{T_{eq}}}{dt} = \frac{1}{T_{eq}}\tau_{T_{eq}}$$

$$T_{eq} = N^2 T$$

$$= 10^2 T = 100 T$$