ΔH

i - rock, j - paper, k - scissors, N - i - j - k + players

H = -x(1-x)

$\Delta H = \Delta H(t+1) - \Delta H(t)$,

$\Delta H = -x_{t+1}(1-x_{t+1}) - (-x_t(1-x_t))$

$\Delta H = -x_{t+1}(1-x_{t+1}) + x_t(1-x_t)$

$\Delta H = x_t(1-x_t) - x_{t+1}(1-x_{t+1})$

Rough equation:

$\langle \Delta H \rangle = \sum_{i,j,k} \Big(\Delta H_s - \Delta H_{s'} \Big) T^{s \to s'}$

$$
\begin{aligned}
\langle \Delta H \rangle = \frac{1}{N^6} \sum_{i=1}^{N} \sum_{j=1}^{N} \sum_{k=1}^{N} \Big[& (N-i-j-k)(1-N+i+j+k)(T^{R+} + T^{P+} + T^{S+} + T^{+R} + T^{+P} + T^{+S}) \\
& - (N-i-j-k+1)(-N+i+j+k) T^{R+} \\
& - (N-i-j-k+1)(-N+i+j+k) T^{P+} \\
& - (N-i-j-k-1)(2-N+i+j+k) T^{+R} \\
& - (N-i-j-k-1)(2-N+i+j+k) T^{+P} \\
& - (N-i-j-k-1)(2-N+i+j+k) T^{+S} \Big]
\end{aligned}
\tag{1}
$$

Ignoring some of the transition probabilities not including + as they would cancel out as they are just cycling within RPS and have no effect on ΔH_{SD}. Factorise this, then replace i,j,k with x = i/N, y = j/N... etc then replace sums with integrals.