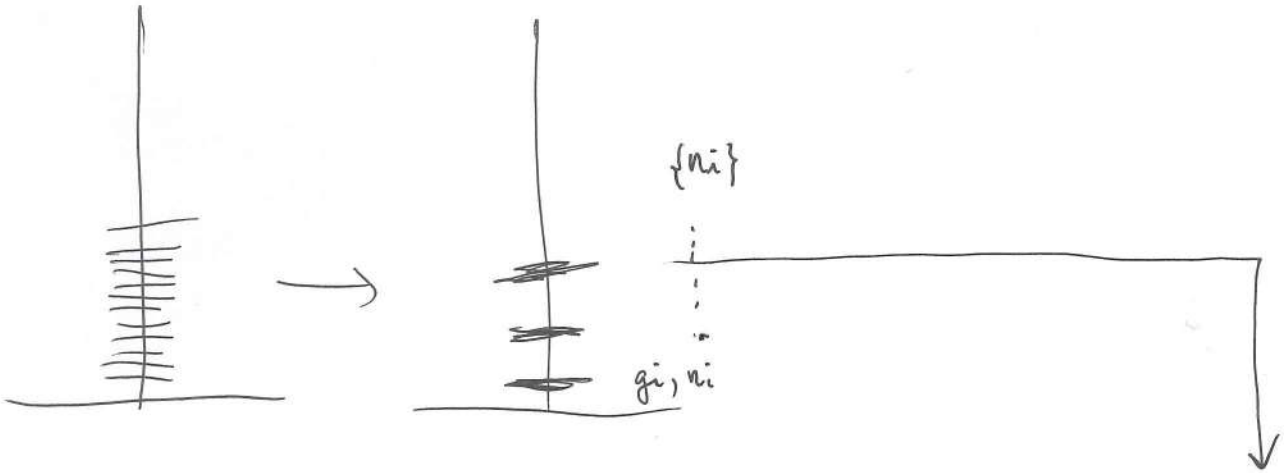

$\Omega = \Omega(N, V, E)$

$E = \sum_i n_i \varepsilon_i$

$N = \sum_i n_i$

$\Omega = \sum'_{\{n_i\}} W\{n_i\}$

$W\{n_i\} = \prod_i W(i)$

n_i particelle identiche localizzate ! < bosoni fermioni

$W\{n_i\} = \prod_i W(i)$ <

$W(i)_{BE} = \frac{n_i + g_i - 1}{n_i!\,(g_i - 1)!} \longrightarrow \prod_i \frac{(g_i + g_i - 1)!}{n_i!\,(g_i - 1)!}$

$W(i)_{FD} = \frac{g_i!}{n_i!\,(g_i - n_i)!} \longrightarrow \prod_i \frac{g_i!}{n_i!\,(g_i - n_i)!}$

$W(i)_{MB} = (g_i)^{n_i}$ bosone $\frac{N!}{\prod_i n_i!} \times \left[\frac{1}{N!}\right]$ $\prod_i \frac{(g_i)^{n_i}}{n_i!}$

$S(N, V, E) = k_B \ln \Omega(N, V, E) = k_B \ln \left[\sum'_{\{n_i\}} W\{n_i\}\right]$

massimizzata

$k_B \ln W\{n_i^*\} \longrightarrow$

Lagrangiana della sistema