

2.4 atketa (a)

$$W = \int \dots \int d^3q \, d^3p$$

$$\left[\int \dots \int d^3q \right] \cdot \left[\int \dots \int d^3p \right] = \int \dots \int d^3p$$

$$(E - \frac{1}{2} \Delta) \leq \sum_{i=1}^{3N} \left(\frac{p_i^2}{2m} \right) \leq (E + \frac{1}{2} \Delta)$$

$$\Delta \left(\frac{m}{2E} \right) \left\{ \frac{2 \pi^{\frac{3N}{2}}}{\left[\left(\frac{3N}{2} \right) - 1 \right]!} (2mE)^{\frac{(3N-1)}{2}} \right\}$$

$$W \approx \frac{\Delta}{E} V^N \frac{(2 \pi m E)^{\frac{3N}{2}}}{\left[\left(\frac{3N}{2} \right) - 1 \right]!}$$

Mutualen orientate
faze-egitarian

amplifikatori adrestatate

$$\Gamma = \frac{-W}{W_0} \rightarrow 2 \text{gan}$$



$$W_0 \equiv h^{3N}$$

W → sistem-gele
Kopier

$$H = \sum_{i=1}^N \frac{p_i^2}{2m}$$

(3)