

並進運動(一次元)

$$H\psi = E\psi, \quad H = -\frac{\hbar^2}{2m} \frac{d^2}{dx^2}$$

$$\psi_k = Ae^{ikx} + Be^{-ikx}, \quad E_k = \frac{k^2 \hbar^2}{2m}$$

$$(\psi_k = C \sin kx + D \cos kx)$$

$$\text{規格化, 直交性} \quad \int \psi_n^* \psi_n d\tau = 0$$

二次元の運動

$$\text{変数分離} \quad \psi(x, y, z) = X(x)Y(y)Z(z)$$

縮退