$$\Delta(t_1, t_2) = -A \exp[-B(t_1 - t_2)^2]$$

$$\int_{-\infty}^{\infty} dt\ \Delta(t, t) = \int_{-\infty}^{\infty} dt\,(-A) \cdots \text{発散}$$

$$\Delta(t_1, t_2) = -A\,\delta(t_1 - t_2)$$

$$V[\chi] = \underbrace{\frac{2\hbar^2}{m\alpha^2} A^2 \int_{-\infty}^{\infty} dt\,[\chi(t)]^2}_{\text{調和振動子のポテンシャル（局時相互作用）}} - \underbrace{\frac{\hbar^2}{m\alpha^2} A \int_{-\infty}^{\infty} dt\ \overbrace{\delta(t-t)}^{\infty}}_{\text{定数項}}$$