$$\left\{\frac{1}{2m}\int_{-\infty}^{\infty}dt\left[-\frac{i\hbar}{\alpha}\cdot\frac{\delta}{\delta\chi(t)}-m\frac{d\chi(t)}{dt}\right]^2-S[\chi]\right\}\Phi[\chi]=0$$

$$S[\chi]\equiv\int_{-\infty}^{\infty}dt\left\{\frac{m}{2}\left[\frac{d\chi(t)}{dt}\right]^2-V[\chi]\right\}$$

$$\boxed{\Phi[\chi]=\exp\left[\int_{-\infty}^{\infty}dt_1\int_{-\infty}^{\infty}dt_2\,\Delta(t_1,t_2)\chi(t_1)\chi(t_2)\right]}$$

$$\boxed{\Delta(t_1,t_2)=\Delta(t_2,t_1)}$$

$$\left(\int_{-\infty}^{\infty}dt\left\{-\frac{\hbar^2}{2m\alpha^2}\left[\frac{\delta}{\delta\chi(t)}\right]^2+\frac{i\hbar}{\alpha}\cdot\frac{d\chi(t)}{dt}\cdot\frac{\delta}{\delta\chi(t)}\right\}+V[\chi]\right)\Phi[\chi]=0$$

$$\boxed{\begin{aligned}&-\frac{\hbar^2}{m\alpha^2}\int_{-\infty}^{\infty}dt\ \Delta(t,t)\\&-\frac{2\hbar^2}{m\alpha^2}\int_{-\infty}^{\infty}dt_1\int_{-\infty}^{\infty}dt_2\ \chi(t_1)\chi(t_2)\int_{-\infty}^{\infty}dt\ \Delta(t_1,t)\Delta(t,t_2)\\&+\frac{2i\hbar}{\alpha}\int_{-\infty}^{\infty}dt_1\int_{-\infty}^{\infty}dt_2\,\frac{d\chi(t_1)}{dt_1}\Delta(t_1,t_2)\chi(t_2)+V[\chi]\\&=0\end{aligned}}$$

まず、

$\Delta(t_1,t_2)$が純虚数 and $\Delta(t,t)$が実数 $\therefore\ \Delta(t,t)=0$

だと思った。