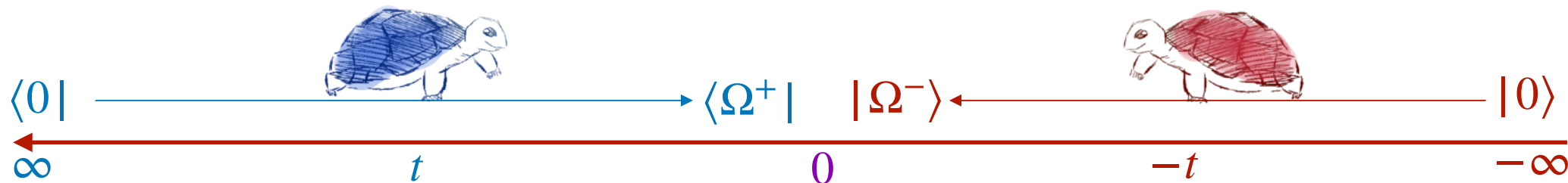


(a)

$$\lim_{\epsilon \rightarrow 0} \frac{\langle 0 | U_{\epsilon I}^\dagger(\infty, 0)}{\langle 0 | U_{\epsilon I}^\dagger(\infty, 0) | 0 \rangle} = \langle \Omega^+ |$$

$$|\Omega^-\rangle = \lim_{\epsilon \rightarrow 0} \frac{U_{\epsilon I}(0, -\infty) | 0 \rangle}{\langle 0 | U_{\epsilon I}(0, -\infty) | 0 \rangle}$$



(b)

