

iv) Se se mide B.

▲ Si se obtiene b

P_B
proyector

$$P_B = |u_3\rangle\langle u_3| + \frac{1}{\sqrt{2}}(|u_1\rangle + |u_2\rangle)\langle u_1 + u_2|$$

$$|\psi'(0)\rangle = \frac{P_B |\psi(0)\rangle}{|P_B |\psi(0)\rangle|}$$

$$P_B |\psi(0)\rangle = |u_3\rangle\langle u_3| \psi(0)\rangle + \frac{1}{\sqrt{2}}(|u_1\rangle + |u_2\rangle)\langle u_1 + u_2| \psi(0)\rangle$$

$$\langle u_3 | \psi(0) \rangle = \frac{1}{2}$$

$$(\langle u_1 | + \langle u_2 |) | \psi(0) \rangle = \frac{1}{\sqrt{2}} + \frac{1}{2}$$

$$P_B |\psi(0)\rangle = \frac{1}{2} |u_3\rangle + \left(\frac{1}{\sqrt{2}} + \frac{1}{2}\right) \left(\frac{1}{\sqrt{2}}\right) (|u_1\rangle + |u_2\rangle)$$

$$P_B |\psi(0)\rangle = \frac{1}{2} \left[|u_3\rangle + \left(1 + \frac{1}{\sqrt{2}}\right) \frac{1}{\sqrt{2}} (|u_1\rangle + |u_2\rangle) \right]$$

$$|P_B |\psi(0)\rangle| = \frac{1}{2} \sqrt{1 + \left(1 + \frac{1}{\sqrt{2}}\right)^2}$$

$$|\psi'(0)\rangle = \frac{1}{N} \left[|u_3\rangle + \left(1 + \frac{1}{\sqrt{2}}\right) \frac{1}{\sqrt{2}} (|u_1\rangle + |u_2\rangle) \right]$$

$$|\psi'(t)\rangle = e^{-iHt/\hbar} |\psi'(0)\rangle$$

$$= \frac{1}{N} \left[e^{-2i\omega_3 t} |u_3\rangle + \left(1 + \frac{1}{\sqrt{2}}\right) \frac{1}{\sqrt{2}} \left(e^{-i\omega_1 t} |u_1\rangle + e^{-2i\omega_2 t} |u_2\rangle \right) \right]$$