State preparation Processing of information ideal output | \(\psi \) ideal output $U|\psi\rangle$ coherent error $|\psi'\rangle \neq |\psi\rangle$ incoherent error $\{p_i, |\psi_i\rangle\}$ coherent error $|\psi'\rangle \neq U|\psi\rangle$ incoherent error $\{p_i, |\psi_i\rangle\}$ Ouantum communication ideal output $|\psi\rangle$ coherent error $|\psi'\rangle \neq |\psi\rangle$ incoherent error $\{p_i, |\psi_i\rangle\}$ photon loss no state