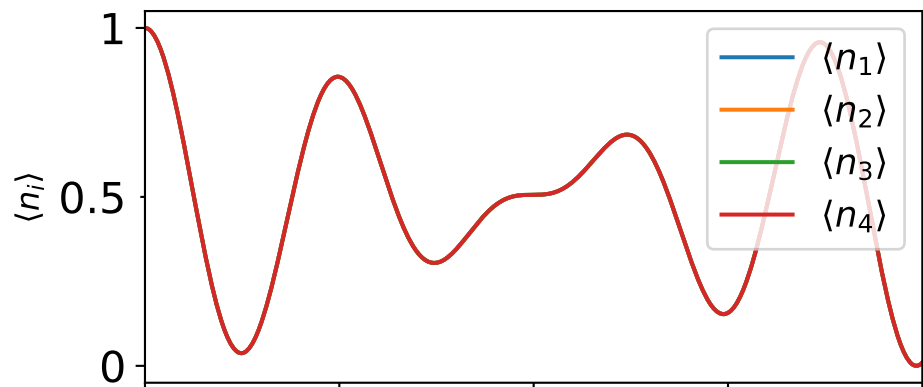


Initial state $|1111\rangle$

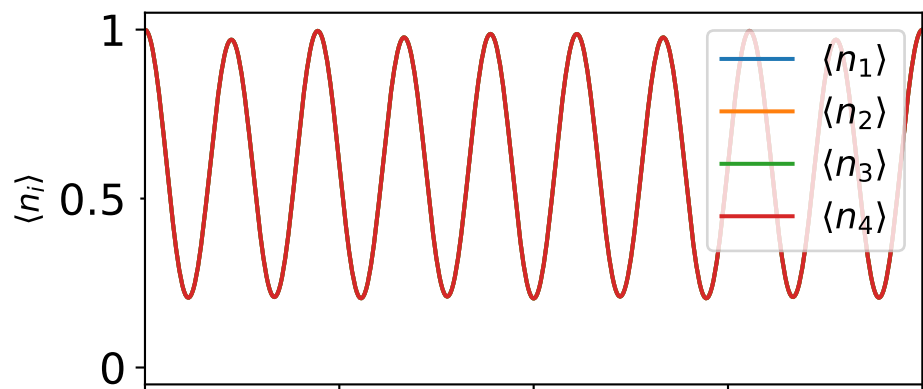
a) $\varepsilon = 0, t = \Delta, t_c = 0.5, \varphi = 0$



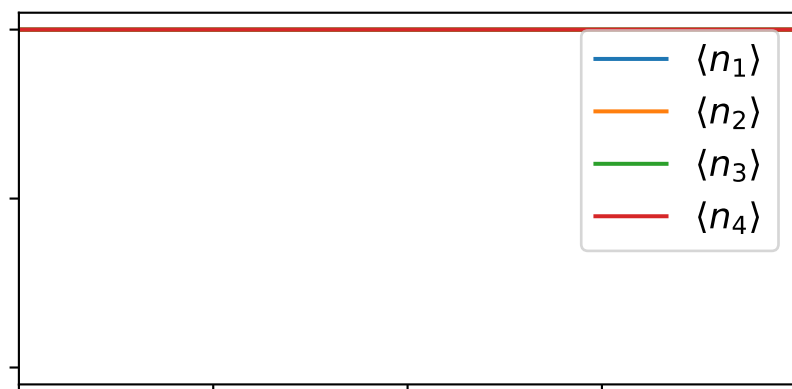
b) $\varepsilon = 0, t = \Delta, t_c = 0.5, \varphi = \pi$



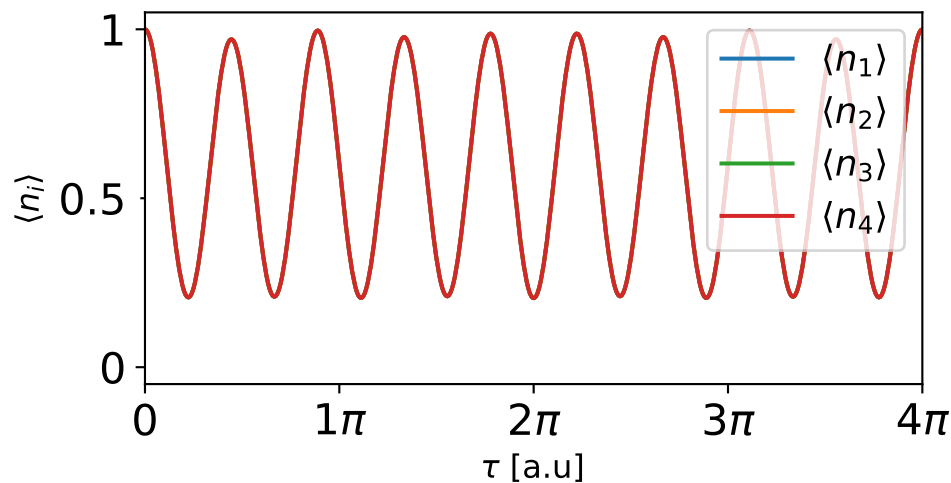
c) $\varepsilon = 1, t = 1, \Delta = 2, t_c = 0.5, \varphi = 0$



d) $\varepsilon = 1, t = 1, \Delta = 2, t_c = 0.5, \varphi = \pi$



e) $\varepsilon = 1, t = 1, \Delta = 0.5, t_c = 0.5, \varphi = 0$



f) $\varepsilon = 1, t = 1, \Delta = 0.5, t_c = 0.5, \varphi = \pi$

