

## 2-people groups

**Assignment:** Use netsquid to implement a simulated version of 2-steps entanglement purification. Midpoint Source (MS) protocol is used to generate 4 entangled qubit pairs. These entangled pairs are then purified twice using the scheme in Figure 1. If one of the purification algorithms fails, the simulation is terminated. Use a depolarizing noise to decrease the initial fidelity  $F_0$ . Validate the simulation by printing  $F_0, F_1, F_2$ .

The candidates may use the work done in the last laboratory session (09/12/2022) as a starting point.

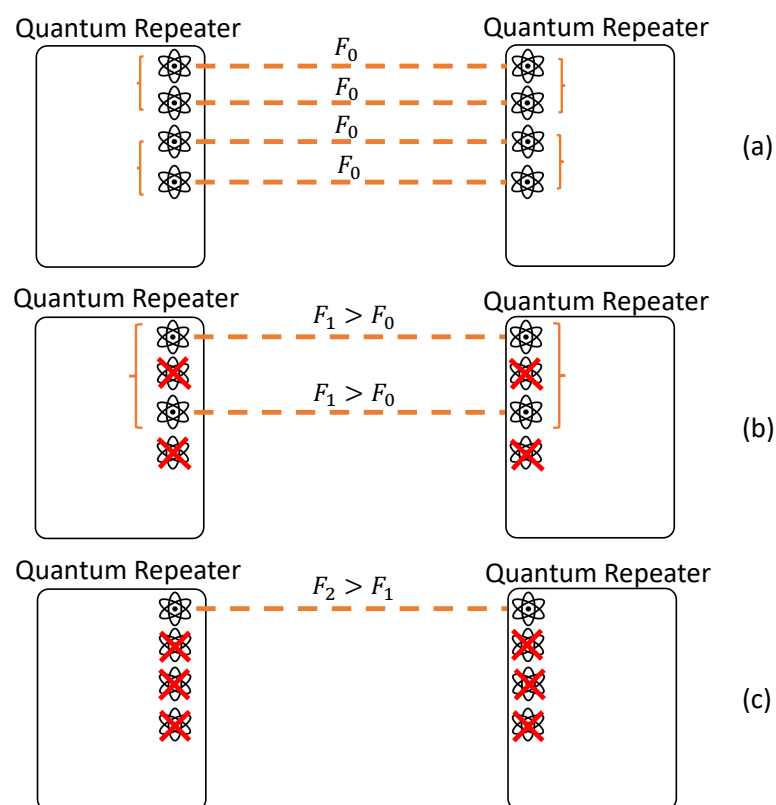


Figure 1