BELL

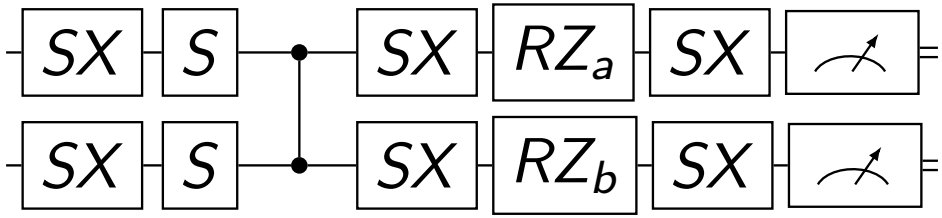
Test Bell inequality on AER or real backend and draw circuits (5 points)

- `qc.cx(control,target)` or `qc.cz(control,target)`
- `qc=QuantumCircuit(2,2)`
- `qc.measure([0,1],[0,1])` or
- `qc=QuantumCircuit(2)`
- `qc.measure_all()`

Measured probability $P(c) = N(c)/N$, fraction of counts
Presentation: Run tomography of the entangled state

Native symmetric circuit

$a, b = 0, 1 \rightarrow -3\pi/8, \pi/8.$



$S|0\rangle = |0\rangle,\ S|1\rangle = i|1\rangle.$