Error correction

- Initialize $|\psi\rangle$ at $|0\rangle$, $(|0\rangle + |1\rangle)/\sqrt{2}$, $|1\rangle$ Simulate bit-flip by random gate X on one of qubits and correct after error detection and reversal to $|0\rangle$
- Replace deterministic X by $RX(\theta) = I\cos\theta/2 - X\sin\theta/2$ on TWO qubits find the probablitity of error (now nonzero)
- Optionally, draw the function $p(\theta)$ for the error probability

Presentation: run on IBM or present advanced error correction methods.