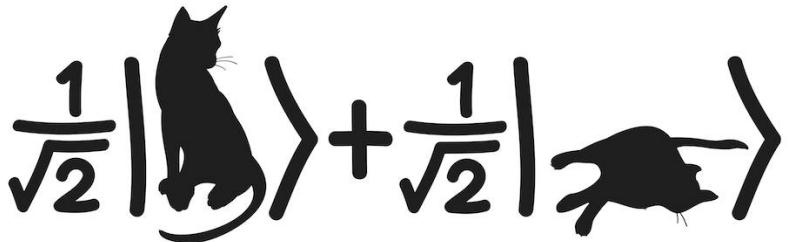


# Quantum Mechanics & Quantum Computation

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## Lecture 6: Quantum Circuits and Teleportation

Computation by Teleportation

# Teleportation

Alice

$$|\psi\rangle = \alpha|0\rangle + \beta|1\rangle$$



$$\frac{1}{\sqrt{2}}|00\rangle + \frac{1}{\sqrt{2}}|11\rangle$$

Bob

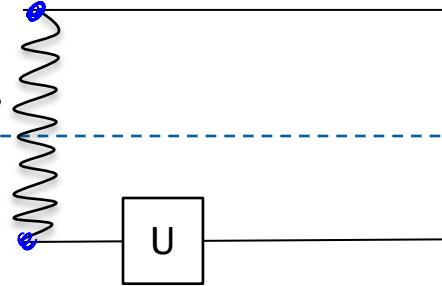
# Teleportation

Alice

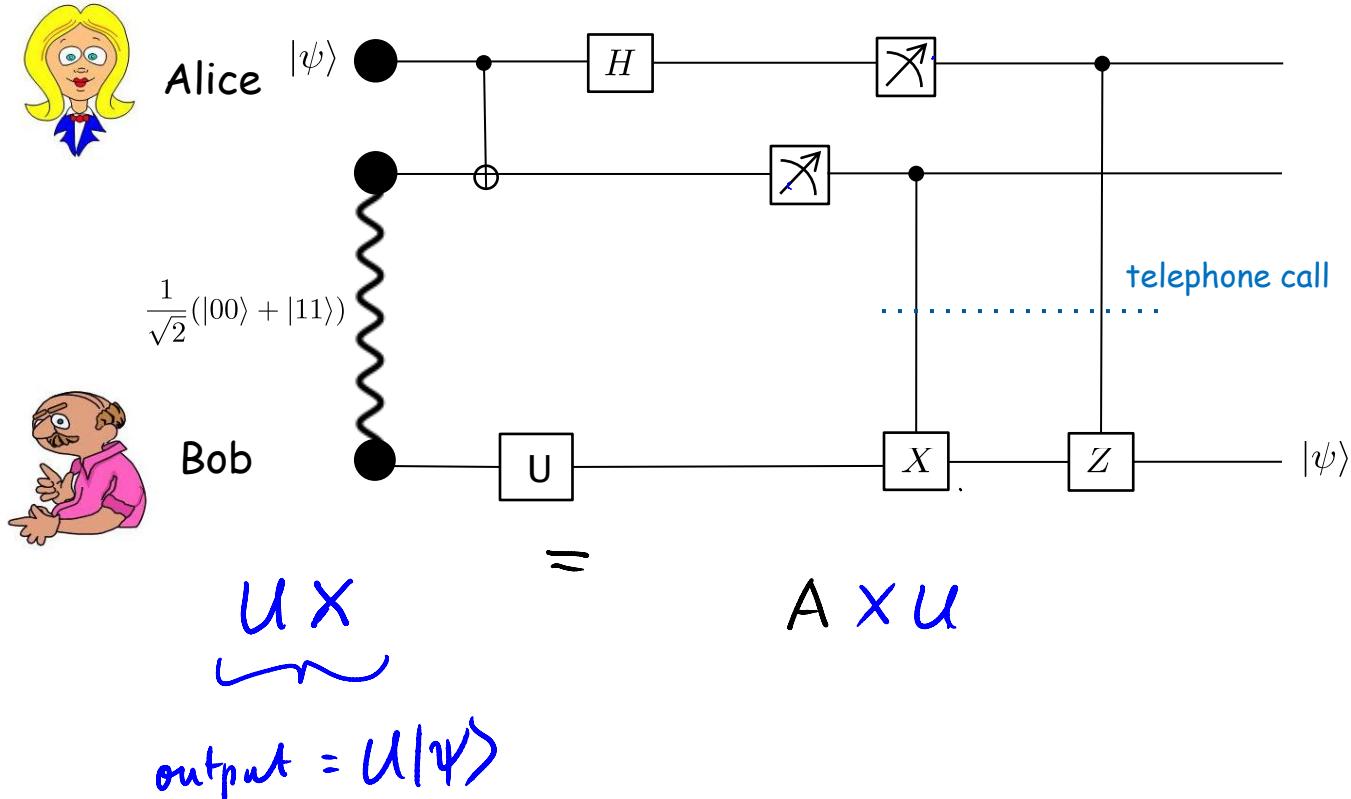
$$|\psi\rangle = \alpha|0\rangle + \beta|1\rangle$$

Bob

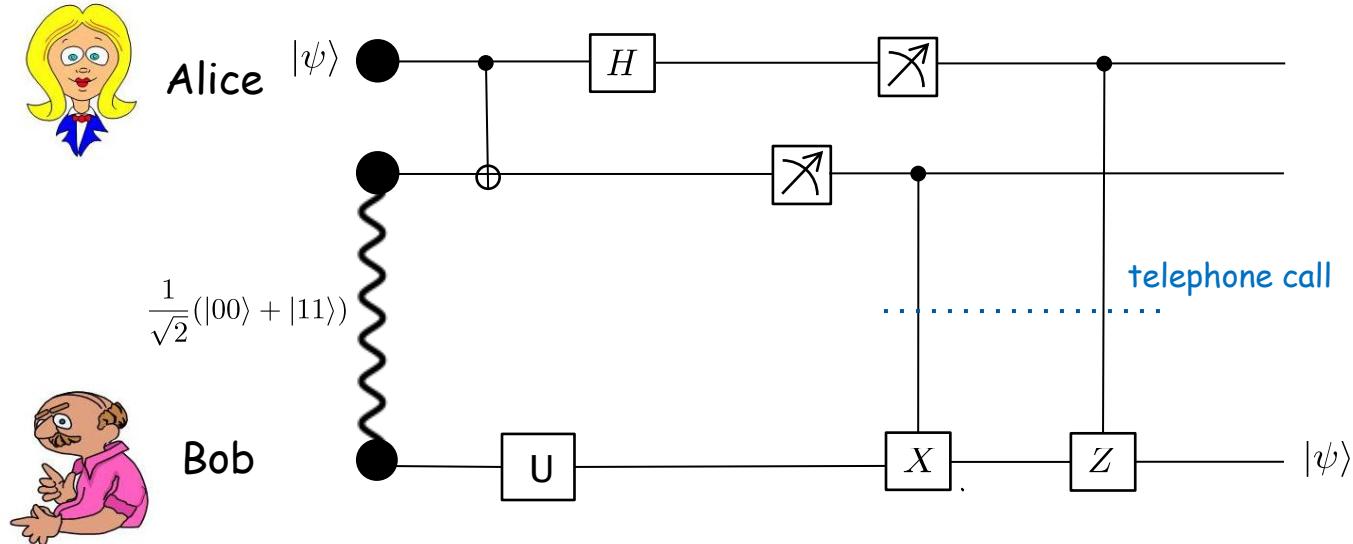
$$\frac{1}{\sqrt{2}}|00\rangle + \frac{1}{\sqrt{2}}|11\rangle$$



# Computation by teleportation



# Computation by teleportation



<http://arxiv.org/pdf/quant-ph/9908010v1.pdf>