Quantum computing might solve the

Quantum computing may make

Building a Knowledge Foundation

Preparing for Future Applications

“impossible” possible!

world's biggest challenges!

time to prepare them for the future!

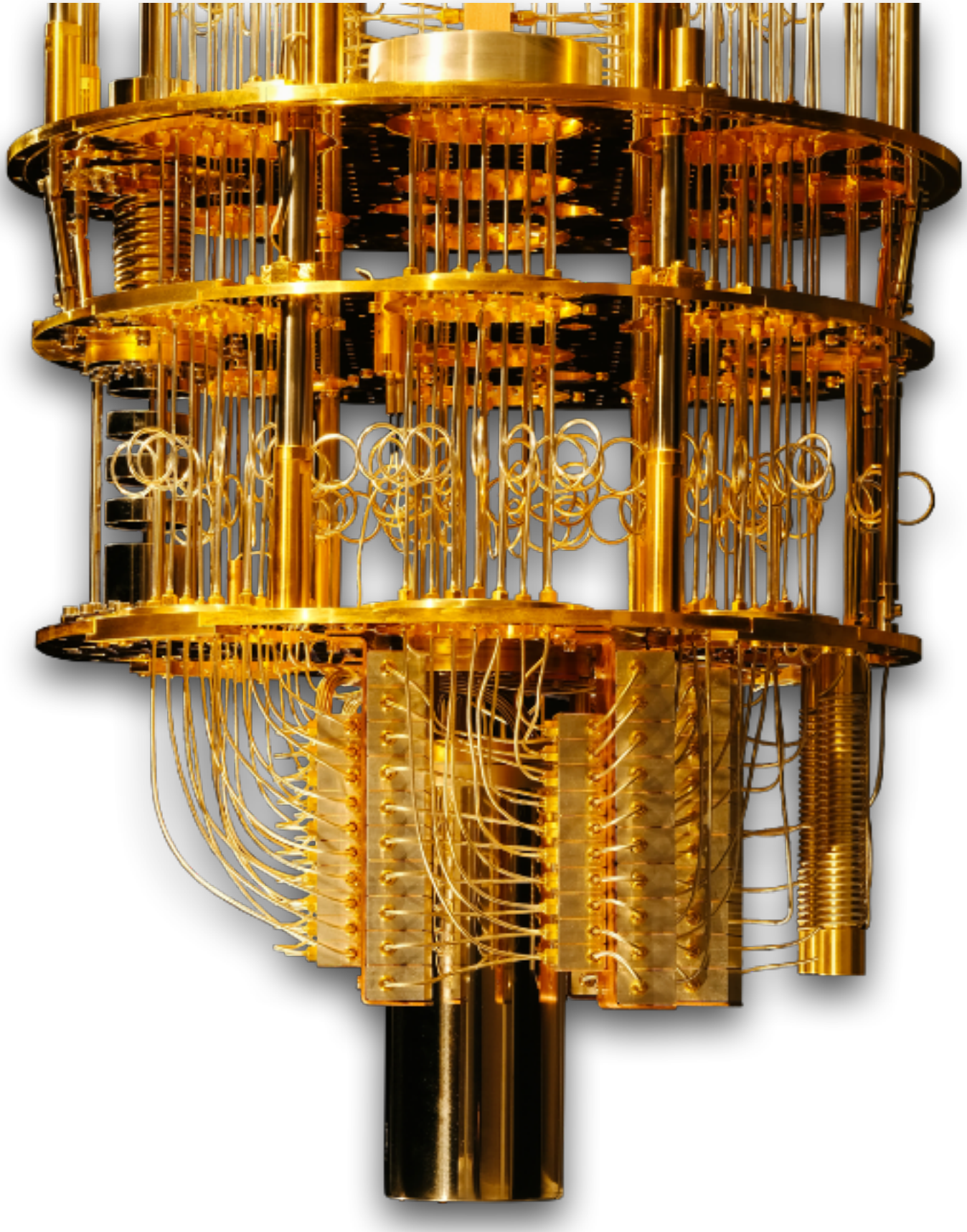
❖ Now Quantum Computers are noisy;

Jack Y. Araz

OLD DOMINION UNIVERSITY
1930

Jefferson Lab
EXPLORING THE NATURE OF MATTER

Keyboard or Joystick (K or J) ?

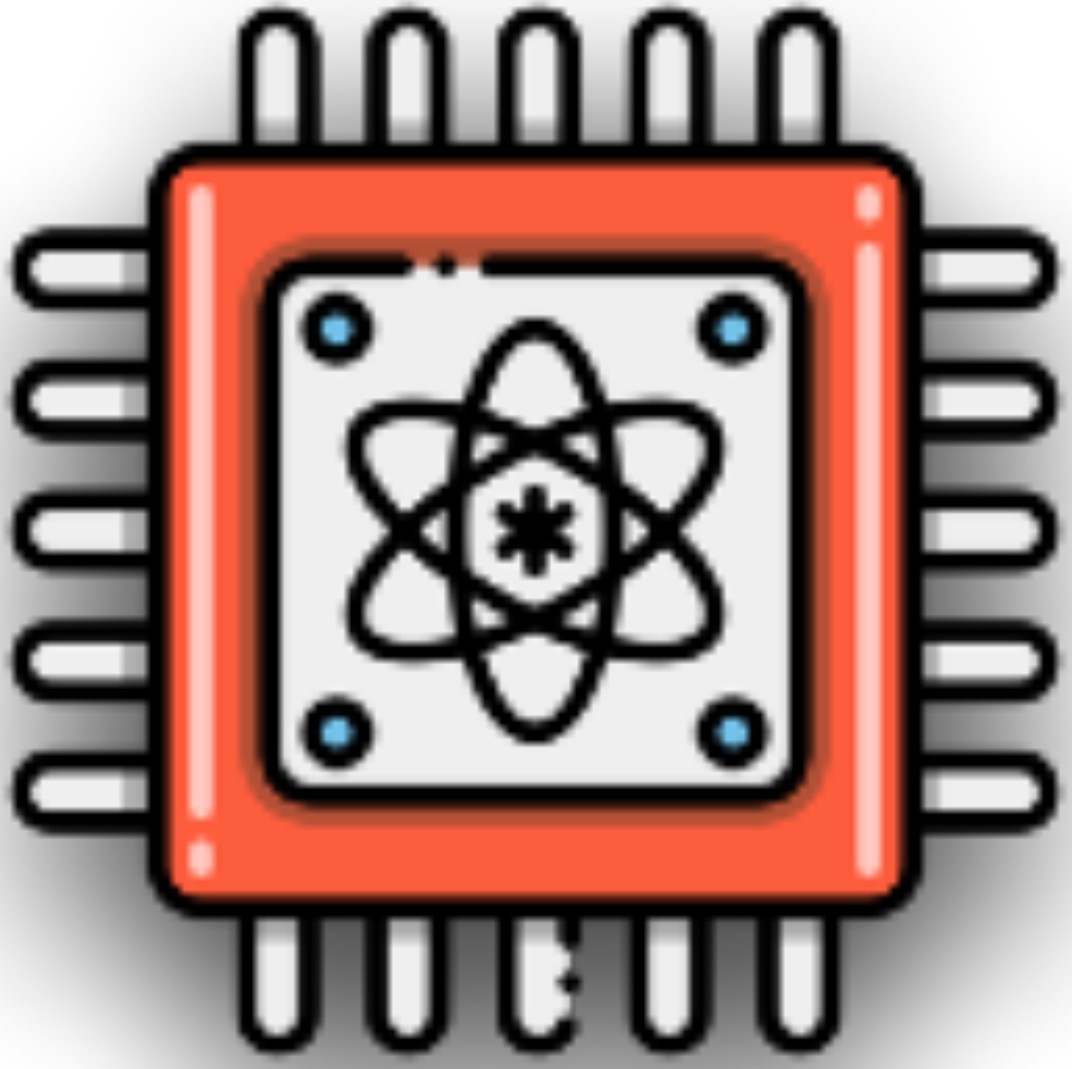


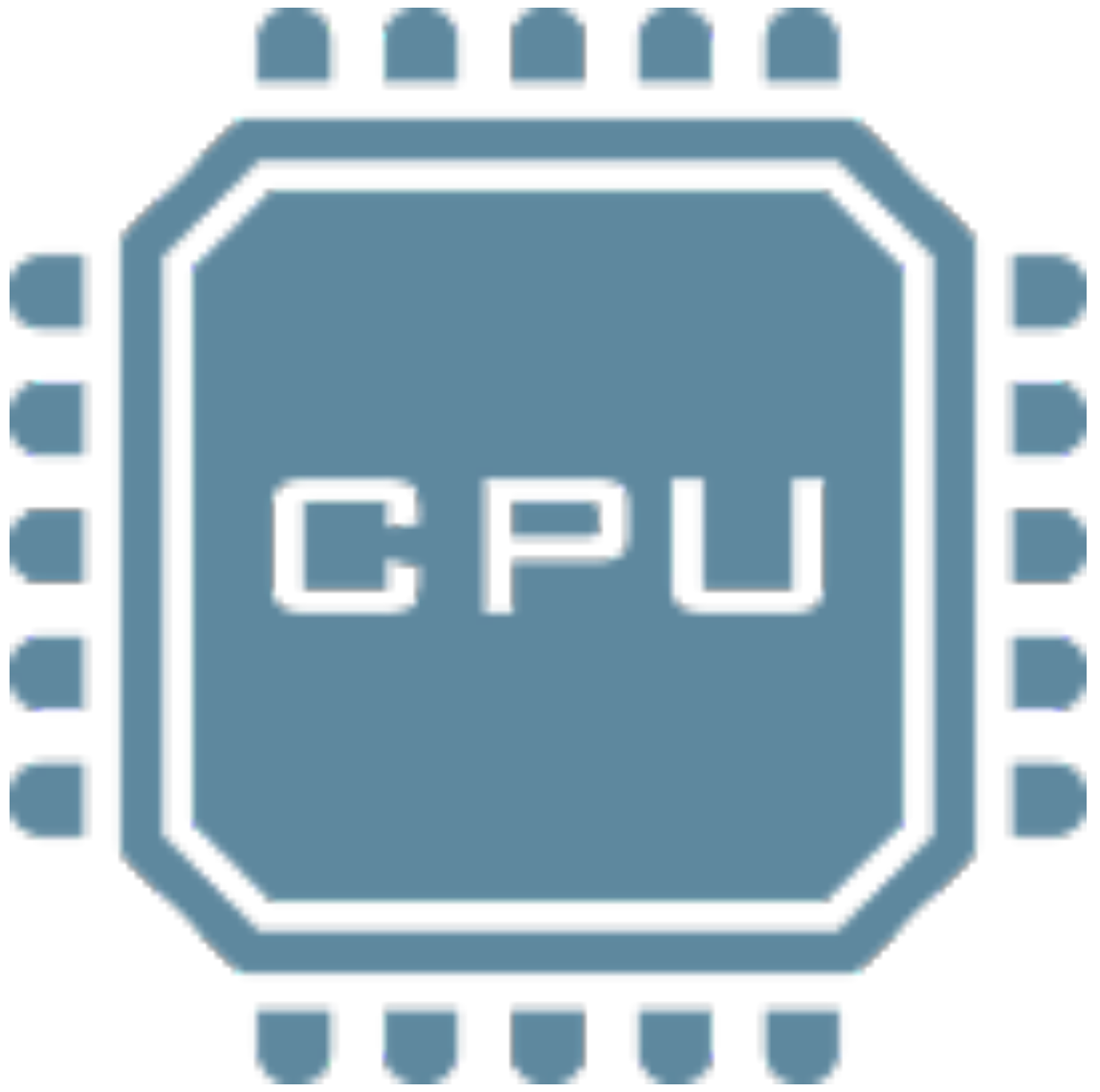
IBM quantum

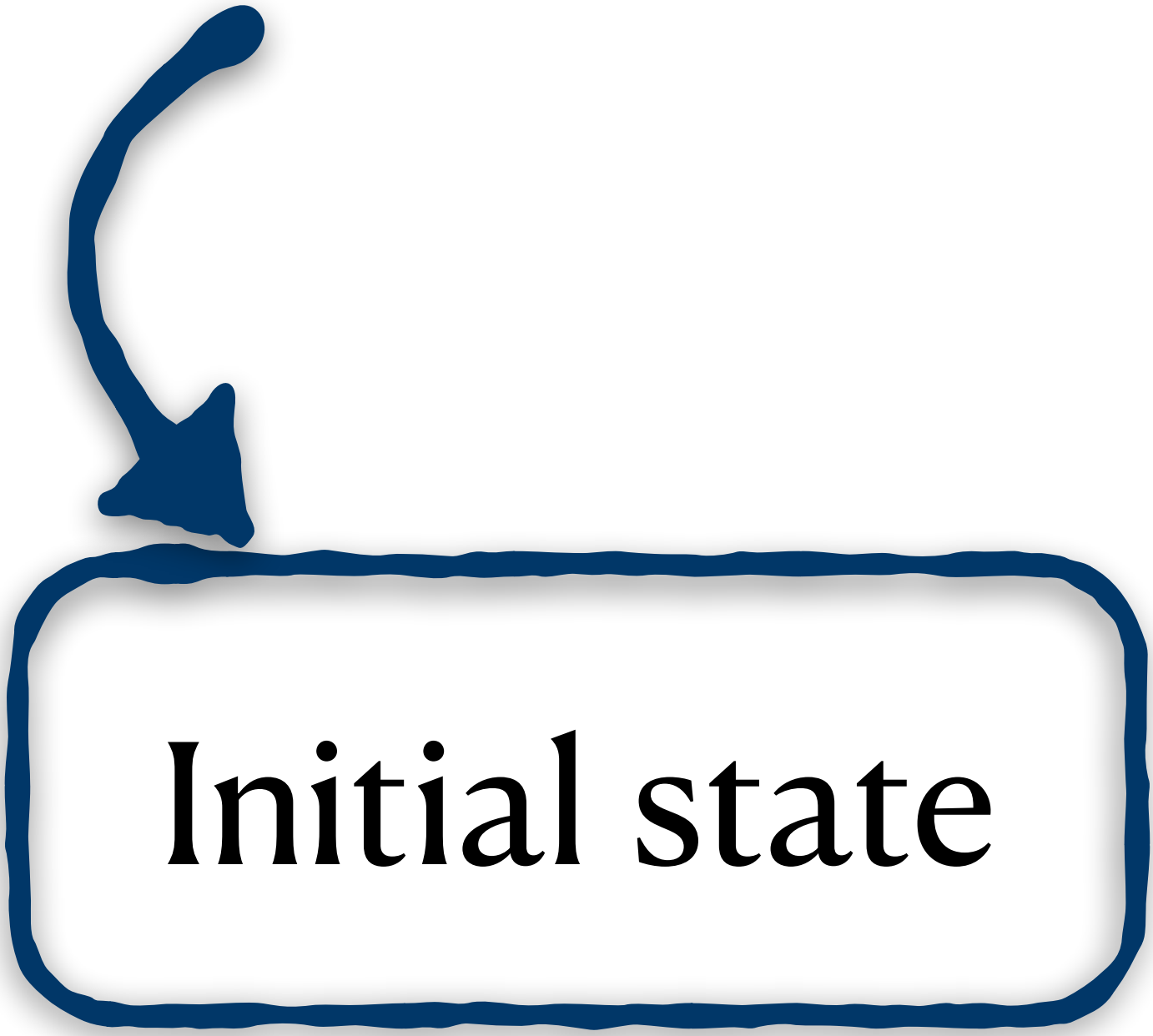
computer

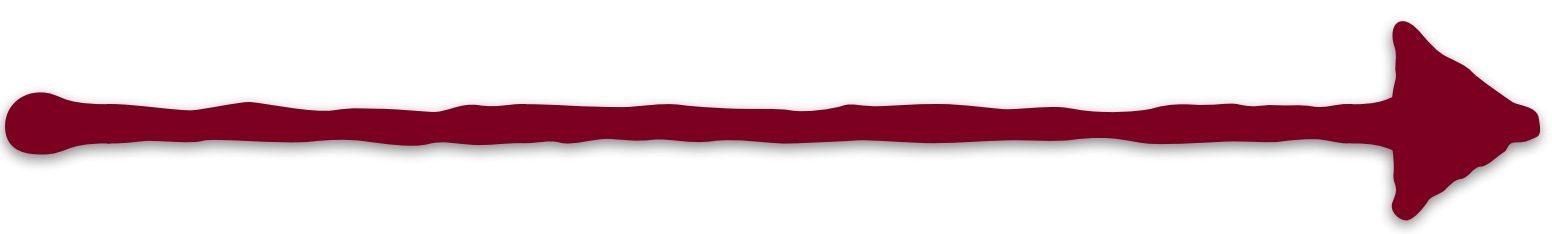
expressivity!

Enhanced

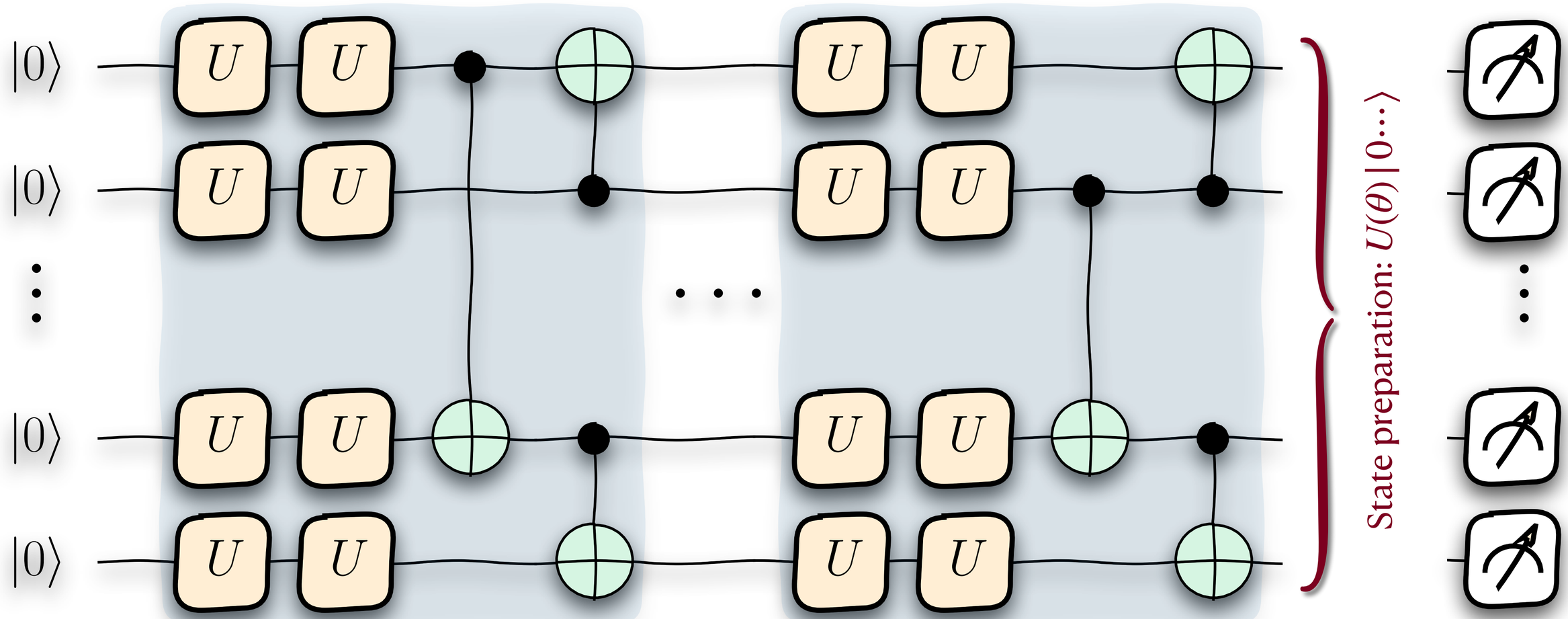



CPU


Initial state



Read from left to right!


$|0\rangle$
$|0\rangle$
$|0\rangle$
$|0\rangle$
U
State preparation: $U(\theta)|0\cdots\rangle$