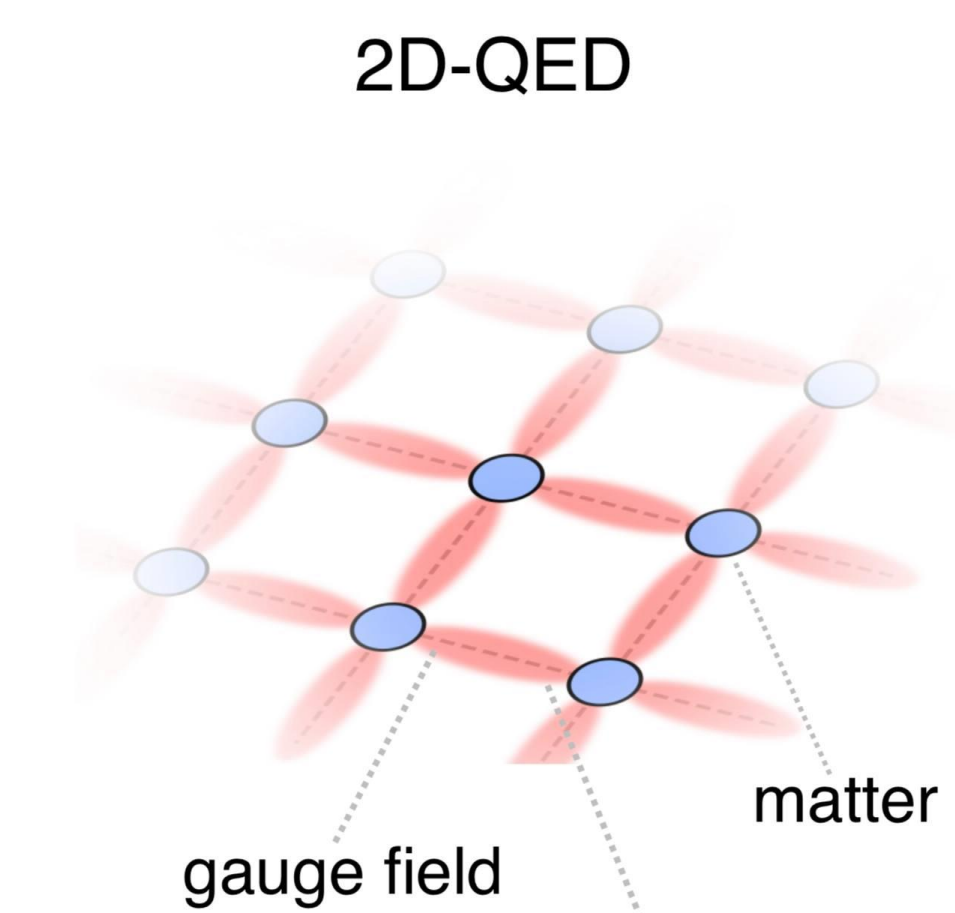


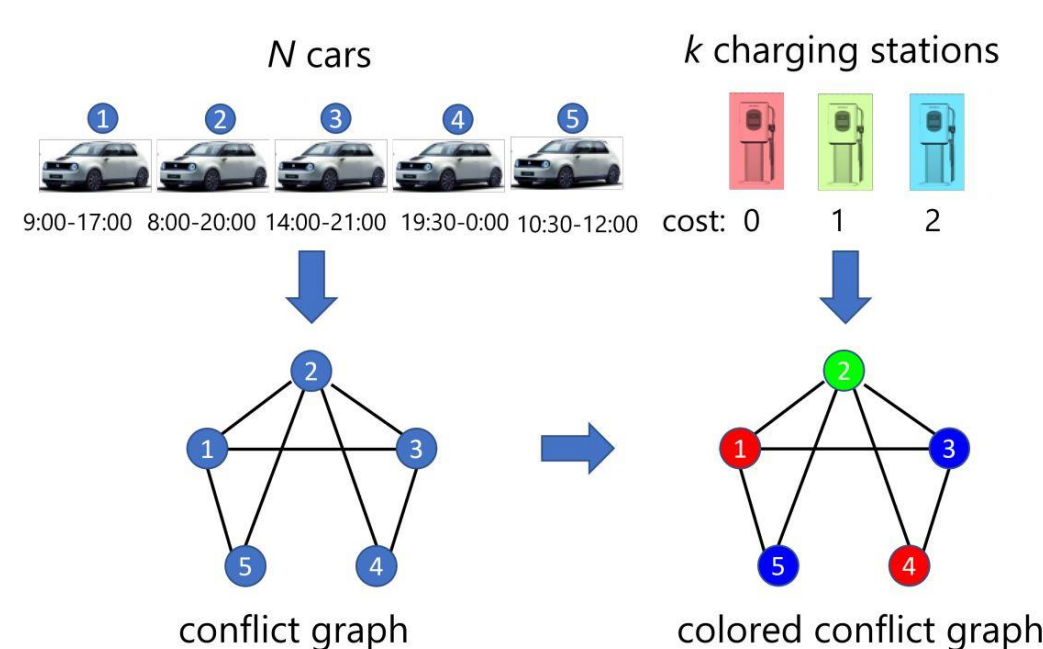
MQT Qudits Overview

Envisioned Flow

Problems suited for qudit systems



- High dimensional quantum simulation
arXiv:2310.12110

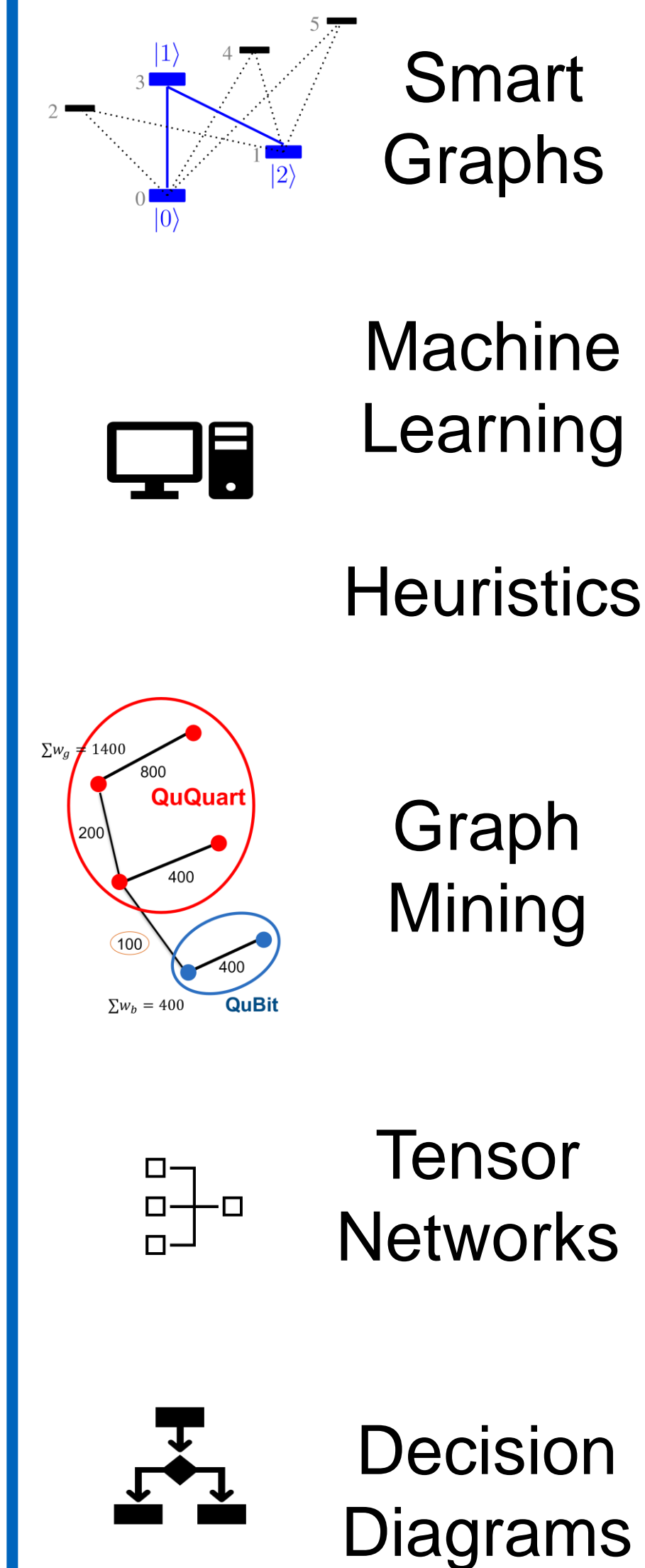


- Integer optimization
arXiv:2204.00340
- compression of quantum data
 - quantum machine learning

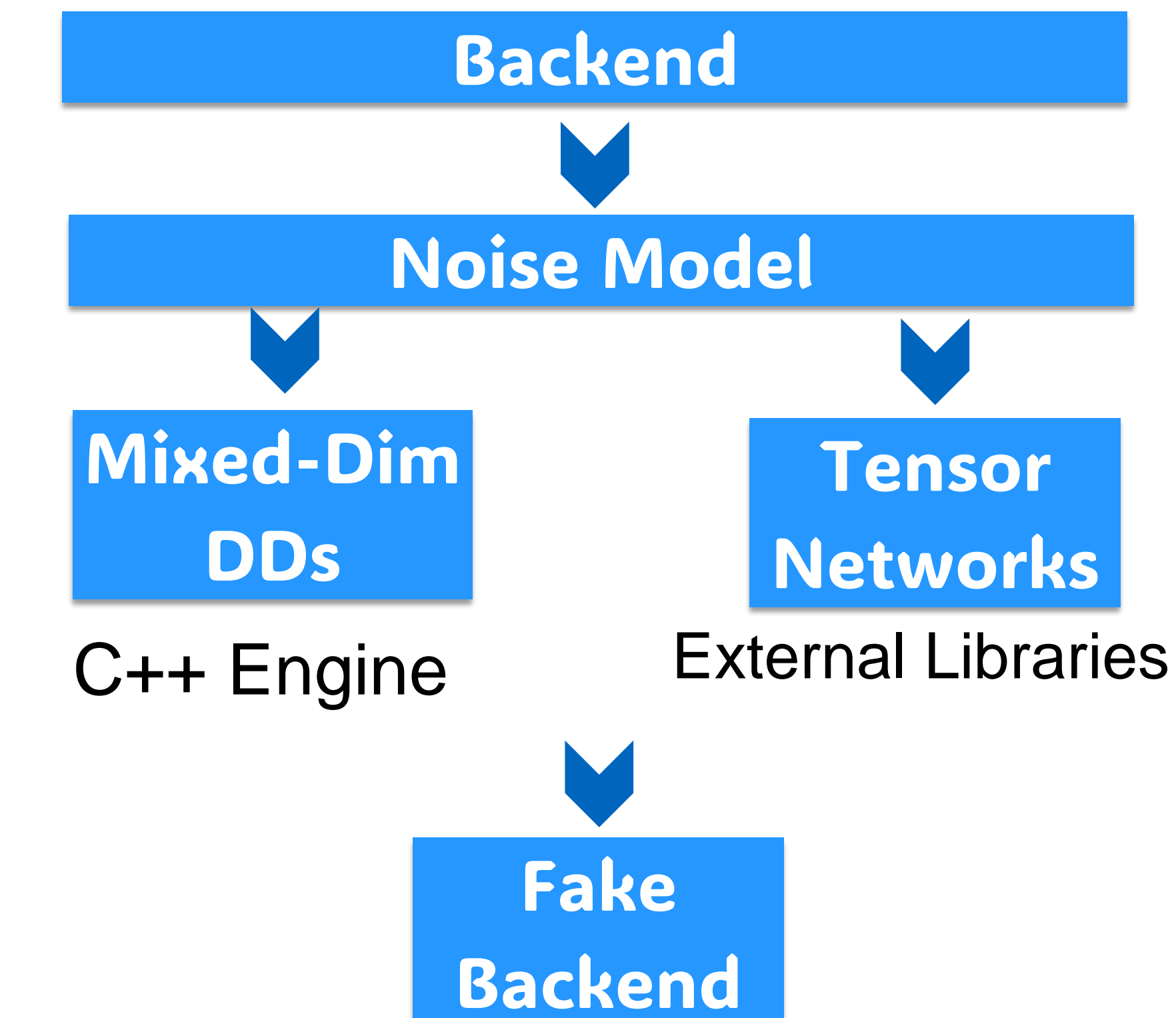
User Input

- Extended Open QASM for qudits
- Python Interface

Data Structures / Methods



Simulators

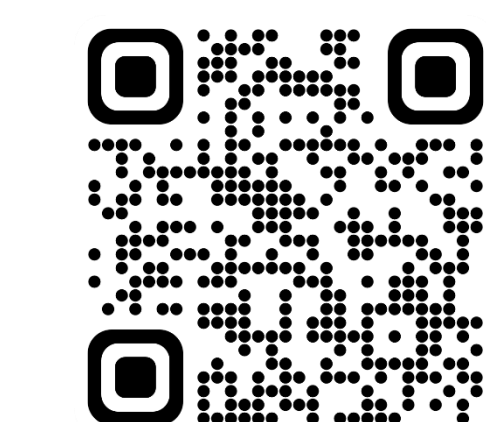
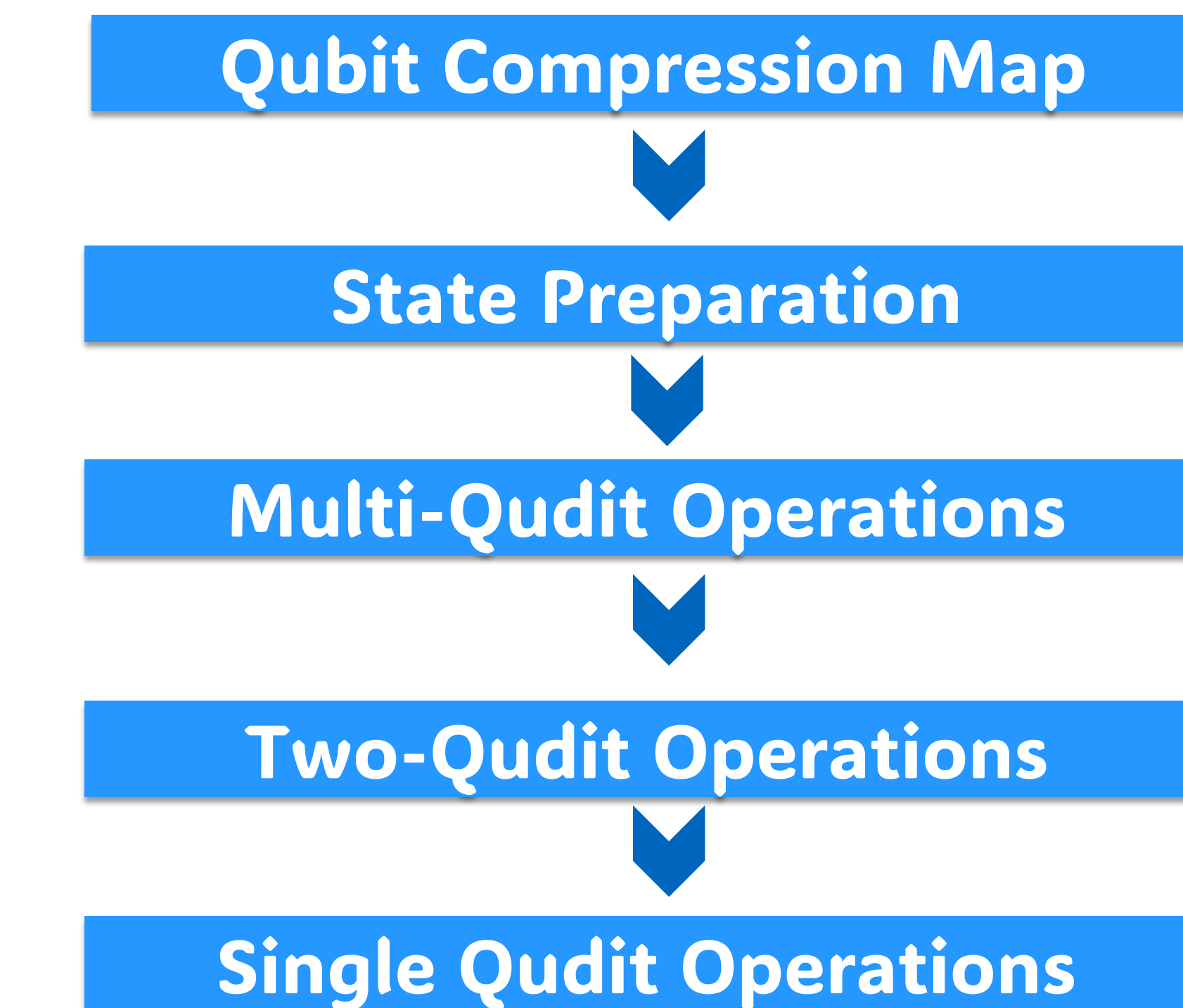


MQT-misim

Platforms

- Ion Traps
 - Superconducting
- universität innsbruck
IBM Quantum

Compiler (as Passes)



MQT-qudit-compression



MQT-qudit-entanglement



MQT-qudit-single