

MPQP for academics

A Multi-Platform Approach to Quantum Software and Experimentation

MPQP (Multi-Platform Quantum Programming) is an open-source Python library developed by ColibriTD to support the teaching and practice of quantum computing through portable, ergonomic and advanced hardware-efficient programming.



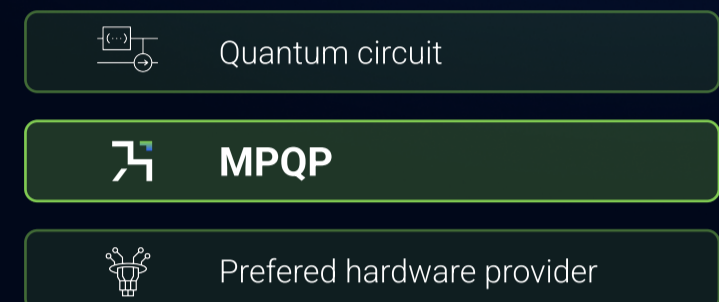
Productivity-Driven Quantum Programming

MPQP maximizes researcher and student productivity through a fluid, ergonomic workflow, enabling users to move quickly from idea to execution and explore complex quantum experiments with minimal friction.



Multi-Platform by design

MPQP provides a unified programming interface to multiple quantum backends, including simulators and real quantum devices, enabling the same quantum program to run across different platforms without code rewriting.



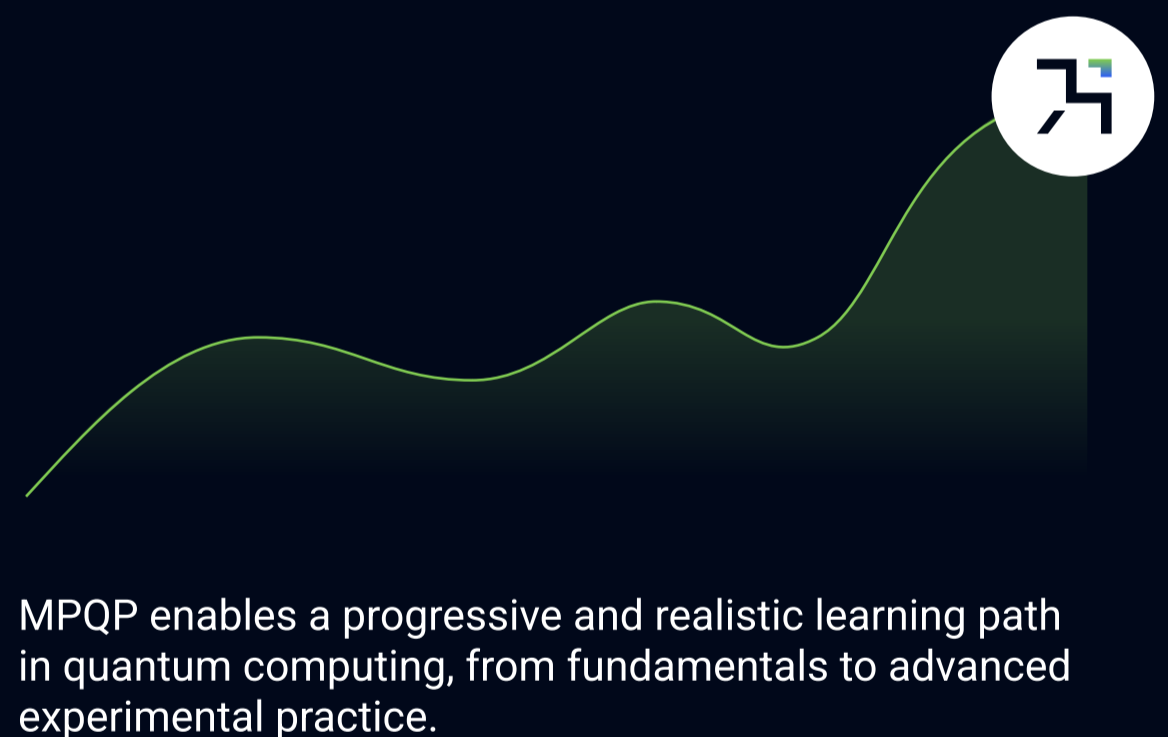
Backend Abstraction with Hardware Awareness

MPQP abstracts platform-specific details while preserving essential hardware characteristics such as noise, execution constraints, and variability, allowing students to understand both abstraction and its limits.

Educational Value

Key pedagogical benefits

- Abstracts platform-specific complexity while preserving hardware realism
- Allows the same quantum program to be executed across multiple backends
- Encourages experimental rigor and reproducibility



MPQP Inside your educational model

Quantum Computing level	Usage of MPQP
Beginners	Introduction to quantum computing
Intermediate	Comparative Quantum Programming
Intermediate	Quantum Algorithmics
Advanced	Noise, Errors, and NISQ Devices
Advanced	Quantum Software Engineering
Expert	Prototyping and benchmarking