IBM Quantum Resources for Self-Learning

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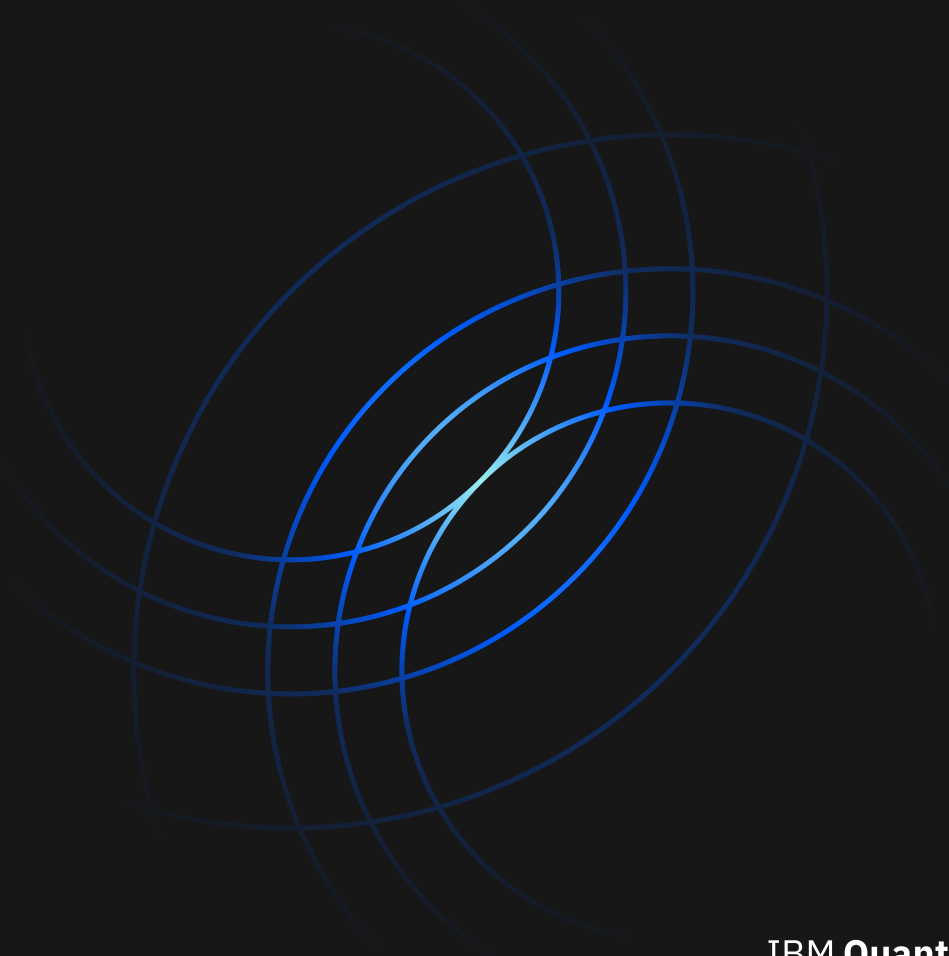


IBM **Quantum**

Materials are available for different learning goals.

Futurists and Leaders

- Imagine Future Usecases and Applications

Fun and Games

- Learn quantum concepts in an intuitive way

Educators

- Prepare lesson plans and courses
- Content Resource
- Share

Beginners and Learners

- Fundamental Concepts
- Professional Certification and Qiskit Advocates

Advanced Users and Developers

- Trouble-shooting
- Learning
- Contributing

Resources for Self-Learning: Agenda

IBM **Quantum**

1

Qiskit.org & Textbook

2

Tutorials & Documentation

3

YouTube & Forums

4

Other Resources for different types of news and information

Resources: Self-learning

IBM Quantum Tools

Cloud applications for programming real quantum hardware and quantum circuit simulators

- IBM Quantum Composer
- IBM Quantum Lab
- OpenQASM

- IBM Cloud – (Where larger systems available as Pay-as-you go option)

Qiskit.org and Qiskit Textbook

- Qiskit.org
- Qiskit Textbook - Interactive online advanced text on quantum algorithms and computation based on Qiskit

Qiskit Documentation & Certifications

- Qiskit Documentation

- IBM Quantum for Developers
- Developer Certificate Syllabus
- Developer Certificate Details

YouTube Channels

IBM Research on YouTube

- Quantum Computing Playlist -

Qiskit YouTube Channel

- Qiskit Foundations – Coding with Qiskit Season 1
- Qiskit Algorithms – Coding with Qiskit Season 2
- Qiskit Live – livestream of public lecture series
- SuperPosition series – explores how individuals became Qiskit developers
- 1 Minute Qiskit – Qiskit tips and tricks

Resources: Web, Social Media and Blogs

IBM **Quantum**

Articles on new Features, Advancements, and Acomplishments

- Qiskit on Medium
- IBM Quantum Blog
- IBM Research Blog
- IBM Research Europe

Key Information about IBM Quantum

- IBM Quantum Hardware Roadmap
- IBM Quantum Development Roadmap
- IBM Quantum

Announcements

- Qiskit on Twitter
- Jay Gambetta on Twitter
- IBM Research on Twitter
- IBM Quantum LinkedIn

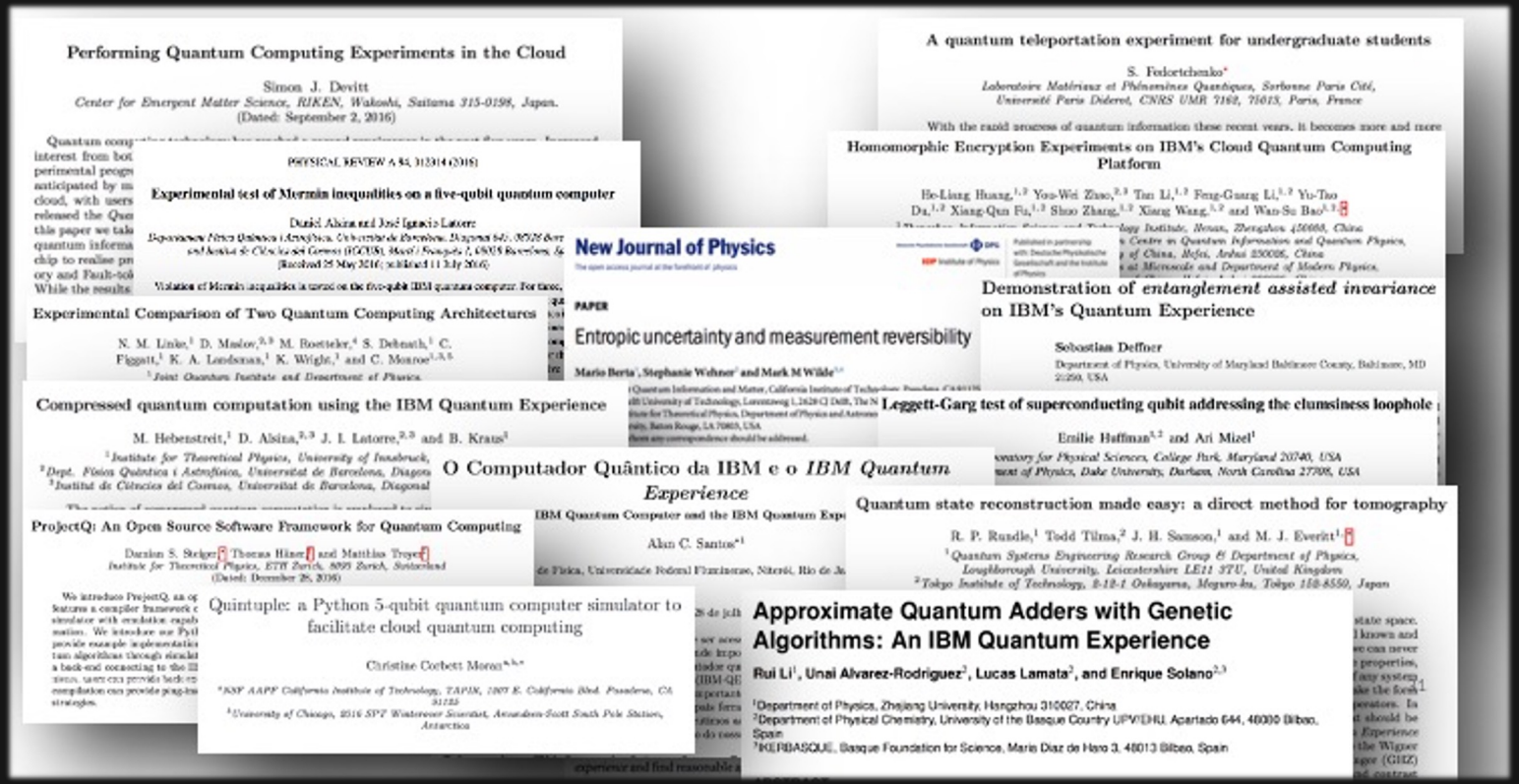
Help Forums

- Qiskit on Slack

  #qiskit-101
  #qiskit-dev
  #ibm-quantum-systems
  #ibm-quantum-platform
  ...and many interest channels

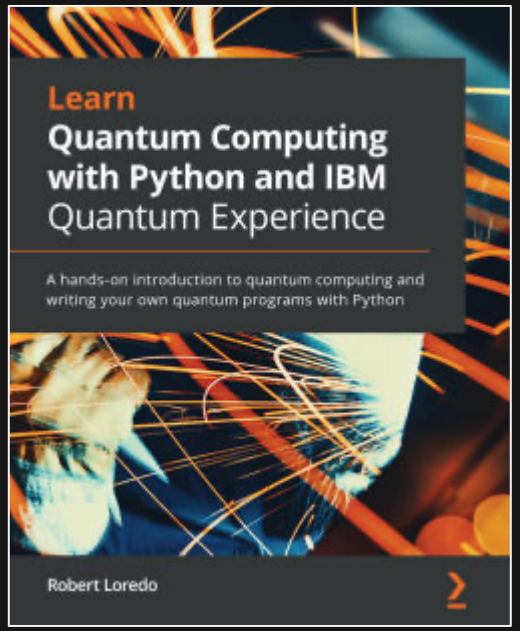
- Qiskit on GitHub
- Quantum computing on Stack Exchange
- Stack Overflow – Qiskit tag

Research Papers: https://arxiv.org



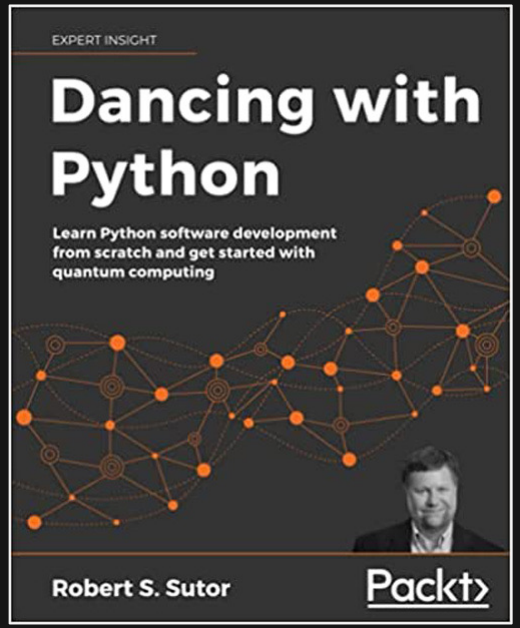
Quantum Computing Books by IBM Authors

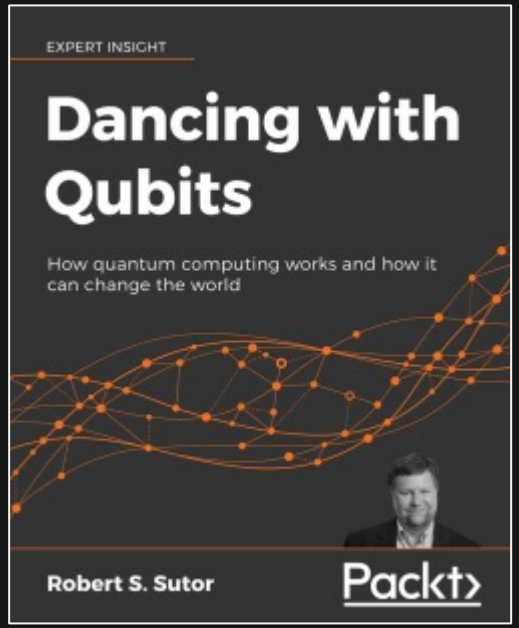
IBM **Quantum**



Quantum Computing Books by IBM Authors

IBM **Quantum**





Resources for Self-Learning

IBM **Quantum**

1

Qiskit.org & Textbook

- Different views & Interactive learning
- Past Summer Courses
- Syllabus

2

Tutorials & Documentation

- Qiskit text book
- Qiskit Documentation (Application Modules)
- IBM Quantum-Computing Platform

3

YouTube & Forums

- Qiskit Youtube and subchannels
- IBM Research
- Help forums available in different platforms, such as slack, Github, Stack Exchange

4

Other Resources

- Blogs
  - → Qiskit on Medium
  - → IBM Research
- Social media accounts
- Journals & Books
- Developer Certificate/Qiskit advocates

IBM **Quantum**