



Architectures And Cryptographic Universes (The Mechanics of Quantum Computing)

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Product Description

Architectures And Cryptographic Universes (The Mechanics of Quantum Computing) From the basic designs of quantum computers to the latest advances in quantum security. “Architectures and Cryptographic Universes: The Mechanics of Quantum Computing” takes you on a complete journey through the world of quantum technology. Whether you are a student, researcher, or professional in computing or physics, this book will help you understand and make the most of the exciting quantum revolution. **Salient Features:** Learn Ahead to the Future – Quantum Computing Survey

- **Learn the Hardware:** Discover how quantum computers actually work – from superconducting qubits and trapped ions to quantum dots and light-based systems – and understand the big challenges of stability and scalability.
- **Learn the Security revolution:** Step into Quantum Cryptography – explore real protocols like BB84, understand the No-Cloning Theorem, and see how quantum tech will change data protection forever.
- **Learn the Science in Action:** Experience how Quantum Simulation helps, design new materials and chemicals, and explore the future of Quantum Machine Learning, adiabatic, and topological computing.
- **Learn by Doing:** Get practical with tools like Google cirq, Microsoft QDK, and open-source simulators. Build your own circuits, run guided exercises, and even test on real quantum devices.
- **Learn the Challenges:** Understand the ongoing research in quantum error correction, cryogenic cooling, and scalable architectures – key steps toward powerful quantum machines.
- **Learn the future:** Imagine what’s next – Quantum Networks, the Quantum Internet, and hybrid systems where classical and quantum computing work hand in hand.

Each chapter Includes:

- Conceptual Breakdown
- Short Questions and MCQs
- Numerical Problems with Solutions
- Project Ideas with Guidance



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