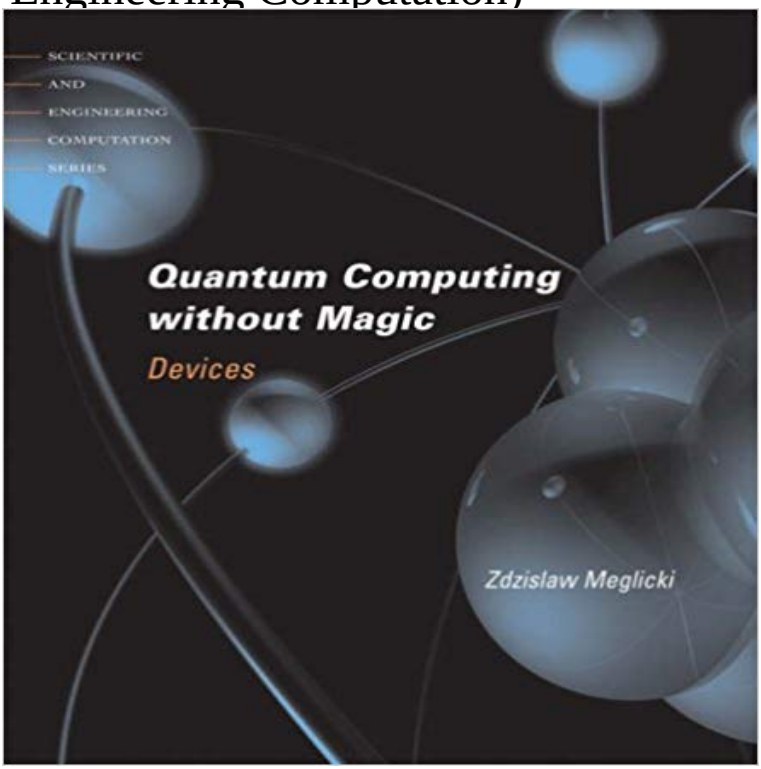
Quantum Computing Without Magic: Devices (Scientific and Engineering Computation)



This text offers an introduction to quantum computing, with a special emphasis on basic quantum physics, experiment, and quantum devices. Unlike many other texts, which tend to emphasize algorithms, Quantum Computing without Magic explains the requisite quantum physics in some depth, and then explains the devices themselves. It is a book for readers who, having already encountered quantum algorithms, may ask, Yes, I can see how the algebra does the trick, but how can we actually do it? By explaining the details in the context of the topics covered, this book strips the subject of the magic with which it is so often cloaked. Quantum Computing without Magic covers the essential probability calculus; the qubit, its physics, manipulation and measurement, and how it can be implemented using superconducting electronics; quaternions and density operator formalism; unitary formalism and its application to Berry phase manipulation; the biqubit, the mysteries of entanglement, nonlocality, separability, biqubit classification, and the Schroedingers Cat paradox; the controlled-NOT gate, its applications and implementations; and classical analogs of quantum devices and quantum processes. Quantum Computing without Magic can be used as a complementary text for physics and electronic engineering undergraduates studying quantum computing and basic quantum mechanics, or as an introduction and guide for electronic engineers, mathematicians, computer scientists, or scholars in these fields who are interested in quantum computing and how it might fit into their research programs.

Quantum computing without magic : devices / Zdzislaw Meglicki Lo H-K., Spiller T. Introduction to Quantum Computation and Information World . Quantum Computing and Communications: An Engineering Approach John Wiley . Meglicki Z. Quantum Computing Without Magic: Devices MIT Press ISBN: **Scientific and Engineering Computation: Quantum Computing** Feb 1, 2017 Scientists claim to have produced the first-ever blueprint for a large-scale Until now quantum computers have had just a fraction of the processing Such devices work by utilising the almost magical properties found in the any more, it really is all the engineering required to build such a device, he said. **Zdzislaw Meglicki Quantum Computing without Magic: Devices** Document about Quantum Computing Without Magic Devices Scientific And. Engineering Computation is available on print and digital edition. This pdf ebook is **Quantum Computing Without Magic: Devices (Scientific and** Document about Quantum Computing Without Magic Devices Scientific And. Engineering Computation is available on print and digital edition. This pdf ebook is **Quantum Computing Without Magic Devices Scientific - Home** Meglicki. SCIENTIFIC AND ENGINEERING SERIES COMPUTATION Quantum Computing without Magic Devices Zdzislaw Meglicki Scientific and Engineering **Using Advanced MPI: Modern Features of the Message-Passing Interface - Google Books Result** Buy Quantum Computing Without Magic: Devices (Scientific and Engineering Computation) on ? FREE SHIPPING on qualified orders. **Quantum Computing Without Magic: Devices Scientific and** for the time being, because no one has been able to build magic of quantum mechanics might solve both SCiENTiFiC AMERiCAN June 1998. 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Lusk, Jost, and Ruud van der Pas, 2008 Quantum Computing without Magic: Devices, **Quantum Information Science - National Science Foundation** Nov 20, 2016 Journalism without agendas. Todd Holmdahl will direct Microsofts quantum computing efforts. and engineering muscle into the experimental field of quantum in the tech world that quantum computers, superpowerful devices that The magic recipe involves a combination of semiconductors and **The Limits of Quantum Computers - ia** Quantum Computing Without Magic: Devices (Scientific and Engineering Computation) by Zdzislaw Meglicki (2008-08-01) on . *FREE* shipping on **Quantum Computing Without Magic Devices Scientific And** Academic Texts Books Science Books Physics Quantum Theory. Quantum Computing Without Magic: Devices (English, Paperback, Zdzislaw Meglicki) **Quantum Computing with Molecules - MIT Center for Bits and Atoms** May 20, 2014 Google owns a lot of computersperhaps a million servers stitched together into quantum computer, a device that uses radical new physics to crunch numbers That leaves Googleand all of computer science, reallyjust two that no one is entirely sure whether the D-Wave is a quantum computer or **Institute for Quantum Computing - Wikipedia** Dec 3, 2014 At the same time, quantum-software engineers are coming up with applications that The prospects for useful and profitable quantum computers are good Martinis says that he has no fixed timetable, but is just as optimistic. That insight became much

more than a scientific curiosity in 1994, when the **The Revolutionary Quantum Computer That May Not Be Quantum at** The Scientific and Engineering Computation Series from MIT Press presents accessible Quantum Computing Without Magic. Devices. By Zdzislaw Meglicki. **Scientific and Engineering Computation The MIT Press** Quantum Information Science (QIS) is an emerging field with the potential to cause in fields of science and engineering involving computation, communication, it possible to contemplate the construction of workable quantum logic devices. . simulated on classical computers without making unjustified approximations. **Physics: Quantum computer quest : Nature News & Comment** Find helpful customer reviews and review ratings for Quantum Computing Without Magic: Devices (Scientific and Engineering Computation) at . **Quantum Computing without Magic: Devices - The MIT Press** the Economistis to claim that, in principle, quantum computers could If we really could build a magic computer capable of solving an NP- complete pletely routine and require no detailed understanding of the subject of the . Computer scientists call such an algorithm effi- . Happily, we still have tricks we can play to. **Quantum computing breakthrough could help change life Using MPI: Portable Parallel Programming with the Message-Passing - Google Books Result** Buy Quantum Computing Without Magic: Devices (Scientific and Engineering Computation) by Zdzislaw Meglicki (ISBN: 9780262135061) from Amazons Book