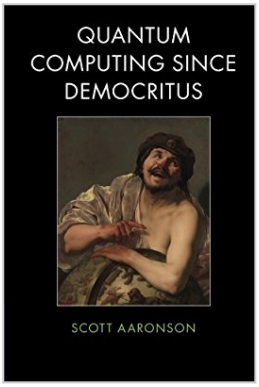

Quantum Computing since Democritus

By Scott Aaronson

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Written by noted quantum computing theorist Scott Aaronson, this book takes readers on a tour through some of the deepest ideas of maths, computer science and physics. Full of insights, arguments and philosophical perspectives, the book covers an amazing array of topics. Beginning in antiquity with Democritus, it progresses through logic and set theory, computability and complexity theory, quantum computing, cryptography, the information content of quantum states and the interpretation of quantum mechanics. There are also extended discussions about time travel, Newcomb's Paradox, the anthropic principle and the views of Roger Penrose. Aaronson's informal style makes this fascinating book accessible to readers with scientific backgrounds, as well as students and researchers working in physics, computer science, mathematics and philosophy.

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Editorial Review

Review
"Scott Aaronson has written a beautiful and highly original synthesis of what we know about some of the most fundamental questions in science: what is information? What does it mean to compute? What is the nature of mind and of free will? Highly recommended."
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G. R. Mayforth, Computing Reviews

About the Author
Scott Aaronson is an Associate Professor of Electrical Engineering and Computer Science at the Massachusetts Institute of Technology. Considered one of the top quantum complexity theorists in the world, he is well known for both his research in quantum computing and computational complexity theory and for his widely read blog Shtetl-Optimized. Professor Aaronson also created Complexity Zoo, an online encyclopedia of computational complexity theory and has written popular articles for Scientific American and The New York Times. His research and popular writing have earned him numerous awards, including the United States Presidential Early Career Award for Scientists and Engineers and the Alan T. Waterman Award.

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