quantum computing

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Chapter 1

model for quantum physics

Imagine a ladder, remember:

every state of your isolated system will be on one level of this ladder

Chapter 2

my favourite representation–matrix

Chapter 3

quantum for what

conductivity / thermalconductivity / hardness / superconducting / superfluidity / phase transition

Chapter 4

key to quantum

superposition / measurement / entanglement
transition of quantum state

superposition

when you *measure*, you'll find yourself stand on either pth floor or qth floor.

measurement

quantum process divided into two parts: measurement and others

basement definite basement

causal same cause different results

uncertainty internal uncertainty hint–to control the probability of a coin's side

entanglement

form
ghost reaction
obey the relativity–information theory
Bell inequality–the correlation between physical quantity of different system. If the quantity is classical, it's $\sqrt{2}$, if it's quantum, then it's $2\sqrt{2}$

Chapter 5

transition of quantum state