

30. Quantum Information

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To wrap up this course we will briefly explore several aspects of the growing science of quantum information. Because this subject is rather new and is growing very quickly, it's hard to find text materials that are at the right level for this course. Here, however, are a few items that you should read (or in the last case, watch):

- Read Griffiths, 2nd edition, Section 12.3, “The No-Clone Theorem.” (Unfortunately, this section was not part of the 1st edition.)
- In the Wikipedia article “Quantum key distribution,”

http://en.wikipedia.org/wiki/Quantum_key_distribution,

read the section on the BB84 protocol. This is the simplest example of so-called quantum cryptography.

- Read the Wikipedia article “Quantum computing,”

http://en.wikipedia.org/wiki/Quantum_computing,

which gives a very broad overview of this field. If you have time, explore a few of the links to more specialized articles.

- Watch the YouTube video “Quantum Computers Animated,”

<https://www.youtube.com/watch?v=T2DXrs00pHU>,

by PhD Comics.