

2021/2022 Seminar Series

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**Computer
Science**

Quantum Computing 101

Presenter:

Gerhard Dueck

University of New Brunswick

Quantum computing has become of interest to engineers, physicists, mathematicians, and computer scientists. In this talk I will show how to write the quantum “Hello World!” program and execute it on an IBM quantum computer in real time. The power of quantum computing is derived from the fact that some problems can be solved in fewer steps than on a classical computer. The simplest algorithm to show this potential, is the Deutsch–Jozsa algorithm. It will be explained in detail. Grover’s quantum search algorithm will be sketched. The talk will end with some remarks on the current state of quantum computing and some speculations about its future.

ALL STUDENTS ARE ENCOURAGED TO ATTEND

**Wednesday, April 6th @ 4pm
Head Hall, room C13**