

TITLE: Quantum Cryptography

AUTHORS: Alexa Gopaulsingh
Jillian St. Bernard

SUPERVISORS: Dr. R. Andrews
Mrs. A. Joseph-Hutchinson



This project focuses on the exciting field of cryptography and more specifically on quantum cryptography. It aims to introduce the reader to some of the fundamental principles and ideas involved in such a field as well as to explore in detail two protocols which can be practically implemented. With the advent of quantum computing, classical cryptography may soon become obsolete pushing quantum cryptography to the center stage. The first protocol looked at is the BB84 protocol which is based on discrete cryptography (single photon counting) while second protocol examined is a continuous variable coherent-state protocol which has a significant advantage over the former as high rates of transmission are achievable with relatively easily obtainable equipment.