24 May 2017, 2pm (Ingram Lecture Theatre) Carlos Pérez Delgado (School of Computing, University of Kent) Building a Quantum Computer: an Introduction

Quantum computation promises many capabilities that are deemed impossible with current technology. Hence, there has been a growing interest worldwide, in academia, industry, and even military/governmental agencies, on developing quantum computers. But what exactly is a quantum computer, and how does one go about building one? In this talk I will present a brief overview of our best, current, understanding of the answer to these two related questions. My talk will be based on the paper Phys. Rev. A 83, 012303, from 2011, but with updated information to account for the progress of the last 5 years.