Course Overview

SK2903 Quantum Technology is a laboratory course with 5 lab modules. Each module will be run by a different professor in the department of Applied Physics, over a two-week period, will all periods placed within reading period 1 and 2.

Lab 1: Quantized Conductance, run by Ilya Sytjugov, Sept. 9 - Sept. 27

Lab 2: Superconducting Quantum Interference Device, run by David Haviland, Sept. 30-Oct. 11

Lab 3: Quantum Entanglement and Quantum Key Distribution, run by Valery Zwiller, Oct. 28 - Nov. 8

Lab 4: Quantum Erasure, run by Gunnar Björk, Nov. 11 - Nov. 22

Lab 5: Nuclear Magnetic Resonance, run by Vladislav Korenivski, Nov. 25 - Dec. 6

Each lab module will begin with an opening lecture on the first day (Monday) and end with a closing lecture on the last day (Friday). The time and place of these lectures are found in the course schedule. At the first lecture for each lab module, the instructor will present the theory of the lab and schedule the actual laboratory work and data-taking, to take place in smaller groups in their research laboratories.

Laboratory work and data taking is done in smaller groups of 2-4. Students are encourage to discuss their measurements and their solutions to the homework problems. **But all student must write their own, individual laboratory report.** Lab reports should be turned via Canvas, before the deadline given by the instructor. Reports will be graded not only on content, but also style. See the separate file with a sample laboratory report as a style guide.