

Übungsblatt 4 – QIV I

Exercises 2.59, 2.60, 2.61, 2.69, 2.70, 2.72, 2.79, 2.80 from Nielsen-Chuang.

Additionally: write the classical truth table of the Toffoli gate, generalize it to a quantum three-qubit gate, write its matrix representation in the computational basis and show that it is indeed a legitimate quantum gate (i.e., it is unitary).