

PHYS 484 – 584 Quantum Computation and Quantum Information

Spring 2024

Schedule: Thursday 13:40 – 16:30, FENS G025

Textbook: M. A. Nielsen and I. L. Chuang, Quantum Computation and Quantum Information, Cambridge University Press (2000). ISBN 978-1-107-00217-3.

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Grading

- Homework (25%)
- Midterm I (25%)
- Midterm II (25%)
- Project (25%)

Important Dates

- Midterm I: 21 March
- Midterm II: 16 May
- Project Presentations: 23 May

Topics

- Introduction to quantum mechanics
- Quantum information
- Quantum cryptography
- Quantum computation
- Quantum algorithms
- Error and error correction
- Quantum computers