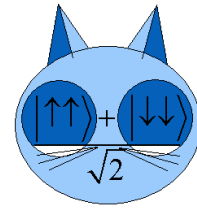


# Theoretisch-Physikalisches Seminar QuantenComputer – WS 2007/2008

Prof. Dr. HEIKO RIEGER mit Dr. YU-CHENG LIN



---

## Shor-Faktorisierung

ZOLTÁN ZIMBORÁS

Shor's factorization is the most impressive and best-known quantum computing algorithm. In its simplest form, it describes how to factor efficiently the product of two large primes using quantum mechanics. Since there is no known efficient classical method for solving this problem, Shor's algorithm clearly illustrates the potential power of quantum computation. But what on earth can quantum mechanics have to do with factoring? In this seminar we will give the answer together with a short introduction to complexity theory. Also some misinterpretations of Shor's algorithm will be discussed.

**Di, 05.Feb.2008, 16-18 Uhr**  
**E2.6 Seminarraum 4.18**