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## **Quantum computation revisited**

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The theory of computation, including modern cryptography, was laid down almost seventy years ago, was implemented within a decade, became commercial within another decade, and dominated the world's economy half a century later. Quantum information technology is a fundamentally new way of harnessing nature. It is too early to say how important a way this will eventually be, but we can reasonably speculate about its impact on computation, mathematical logic and data security. I will review the basic concepts of quantum computation and describe some novel techniques which aim to give data processing devices new functionality.

**Montag, 17. November 2003, 17:30 Uhr**  
(ab 17:00 Uhr Kaffee)

Großer Hörsaal des Instituts für Experimentalphysik der Universität Wien  
Strudlhofgasse 4/1. Stock, A-1090 Wien

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