

Lectures on Advanced Statistical Mechanics II (14 Lectures, 28 hours)

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15. Joint measurements of non-commuting observables.
16. Quantum tomography.
17. Quantum tomography via commutative measurements.
18. Quantum maximum likelihood method.
19. Adaptive measurements.
20. Adiabatic quantum computation.
21. Grover's search.
22. Classical analogues of Grover's search.
23. (Im)possibilities of hyper-Turing computation I.
24. (Im)possibilities of hyper-Turing computation II.
25. Adiabatic quantum systems with and without feedback.
26. Introduction to theory of signals I.
27. Introduction to theory of signals II. Shannon-Nyquist limit.
28. Joint probabilities of intensity and frequency.