



DIPARTIMENTO DI MATEMATICA
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SEMINARI DI FISICA MATEMATICA

Lunedì 27 aprile 2009 – ore 17

Aula Seminario I

SATOSHI MORITA
(SISSA, Trieste)

terrà il seminario

“Annealing Schedules for Quantum Annealing”

RIASSUNTO: *Quantum annealing (QA) attracts much attention as a novel algorithm for optimization problems. This method is based on the adiabatic theorem of quantum mechanics. The non-trivial target state is expected to be obtained from the trivial initial state after the adiabatic evolution. In this talk, we propose faster annealing schedules for QA with finite evolution time. It is known that an error rate of the adiabatic evolution is inversely proportional to the square of the annealing time when the Hamiltonian depends linearly on time. We show that the upper bound of the first-order term of the error rate is determined only by the information at the initial and final times. Our new annealing schedules drop this term, thus bring a faster rate of the error decrease.*

Tutti gli interessati sono invitati a partecipare.

Marco Lenci