



ΓΕΝΙΚΟ ΣΕΜΙΝΑΡΙΟ ΤΜΗΜΑΤΟΣ ΦΥΣΙΚΗΣ

PHYSICS COLLOQUIUM

Thursday, 20 November 2008
17:00-18:00

3rd Floor Seminar Room

"The physics of information and quantum mechanics"

Prof. Manolis Floratos,
University of Athens

Abstract

The role of physics in information theory will be presented in the context of modern developments in quantum computing, quantum algorithms and quantum communication. In particular, we will explain the basic notions of quantum qubits, quantum circuits, Shor's factorization and Grover's data mining algorithms as well as the principles of quantum cryptography. A selected list of experimental implementation of the above issues will be presented.