

Applications of Quantum Mechanics: Optics, Chaos, Random Matrices and Quantum Information

CIC-UNAM, Cuernavaca, July 11-22, 2011

Organizers: Thomas Gorin, Francois Leyvraz, Carlos Pineda

This summer school is intended for physics students, both advanced undergraduates and postgraduates. The lectures will cover a rather broad range of topics, from experimental quantum optics, over wave chaos and random matrix theory to quantum information and many body systems. Courses will be given by internationally recognized experts in their fields. You will have an excellent opportunity to have a closer look at the different research fields; find out about the kind of questions posed, the methods and every day routine.

For more information please contact us at cuerna11@cicc.unam.mx or visit our website http://www.cicc.unam.mx/activities/2011/summer_gorin

Lectures

Fundamentals of Quantum Optics
Pablo Barberis

Acoustic and Elastic Chaos
Thomas Gorin

Quantum Correlations in Complex Systems
Rocío Jaúregui

Discrete Phase Spaces
Andrei Klimov*

Decoherence in Quantum Computers
Gustavo López*

Scattering, absorption, and direct processes
Moisés Martínez

Elastic analogs of Quantum Mechanics
Rafael Mendez and Jorge Flores

Fundamentals of Quantum Information
Carlos Pineda

Precision Quantum Measurements
Fernando Ramírez

Quantum Chaos
Thomas H. Seligman

Random Matrix Theory
Vinayak

Quantum Spin Systems
Marko Znidaric

*to be confirmed

