



School of Nano Science

Monthly Colloquium

Estimation and Control in a Quantum World

Invited Speaker:

Dr. Ali Rezakhani

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School of Nano Science, Institute for research in fundamental sciences

Abstract:

Quantum information science has helped significantly enhance our understanding of nature and how it works. In particular, estimation of unknown parameters -- a pivotal task in science and technology -- has improved by considering quantum resources. Similarly, controlling systems towards their target configurations or dynamics is another essential task, where quantum information science comes starkly useful.

In this talk, I shortly review some of the main ideas of quantum metrology and quantum control, and argue that how our improved ability to perform these two tasks (estimation and control) enables diverse applications.

Wednesday, 22 Day 95 (11 January, 2017), 4-5 pm

Farmaniyeh Building, Conference Hall