BENEMÉRITA UNIVERSIDAD AUTÓNOMA DE PUEBLA

INSTITUTO DE FÍSICA
"Luis Rivera Terrazas"

SEMINARIO
"DR. JESUS REYES CORONA"

"Quantum processes of open systems modeled by random matrices"

Dr. Thomas Gorin
Universidad de Guadalajara

In this talk I would like to give an overview over the research in our group, related to environments modeled by random matrices, as well as the classification of the resulting dynamics in terms of quantum non-Markovianity. The models considered were inspired by the Spin-Boson model (with and without dissipation), where we replaced the Boson part by appropriate ensembles of random matrices. We then studied the resulting process numerically, investigated the different non-Markovianity criteria and measures, and at present, we attempt to derive a uniform approximation, by connecting linear response with time-independent perturbation theory. Eventually, I will also talk a little bit about the difference between divisibility into positive or complete positivity infinitesimal quantum channels.

Auditorio-IFUAP
Viernes 05 de Abril de 2019
13:00 Hrs.