AVVISO DI SEMINARIO

Martedì 23 Maggio 2017, ore 14:30, Aula Riunioni
Dipartimento di Fisica, Via Irnerio 46, 40126 Bologna

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Spectral properties modeling closed and open quantum dynamics, information flow and environmental energy

Spectral properties determine relevant features in the time evolution of open and closed quantum systems. In local dephasing channels, for ohmic-like spectral densities, patterns appear in the flow of quantum information for periodic values of the ohmicity parameter. For specially correlated initial conditions, the long-time variations of the environmental energy follow, in the super-ohmic regime, the flow of quantum infomation. For unstable quantum states, if the energy distribution density exhibits appropriate removable logarithmic singularities in the minimum energy of the spectrum, the instantaneous energy and the survival amplitude show logarithmic-like relaxations that are arbitrarily slower or faster than inverse power laws.

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