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Balades Quantiques de le LPENS

Vendredi 25 Novembre 2022, 12 :45
LPENS, L357
Domaines : cond-mat

Titre : *Stochastic Approach to Quantum Spin Dynamics*

Orateur : **Joe Bhaseen (King's College, London)**

Résumé : *We investigate a stochastic approach to non-equilibrium quantum spin systems based on links between quantum and classical dynamics. Exploiting a sequence of exact transformations, quantum expectation values can be recast as averages over classical stochastic processes. We illustrate this approach for the quantum Ising model by extracting the Loschmidt amplitude and the magnetization dynamics from the numerical solution of stochastic differential equations. We demonstrate that the method is capable of handling integrable and non-integrable problems in a unified framework, including those in higher dimensions.*