Probability Session

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Tuesday, February 06, 2024.
14h30 - 15h20

Math Department - Mini Auditorium

Abstract.

In this talk, we utilize the framework of Markov processes to attain a more probabilistic perspective on the theory of transfer operators. In doing so, we establish a functional central limit theorem (FLCT) for an $O(N)$ model associated with Dyson potential on the one-dimensional lattice. We also proof a FLCT on a non-compact alphabet setting, for a model associated with a Dyson type potential on the one-dimensional lattice. A Breimann ergodic theorem for equilibrium measures arising from the Ruelle Operator Formalism is proved. Furthermore, we obtain a qualitative criterion (strong transitivity) to determine when the conformal measure has full support. As an application, we show how to connect the Ruelle operator framework with the perspective of the *Hopf theory of Markov Processes.*