Mathematics and CS Seminar

A large deviations perspective on functional inequalities

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Functional inequalities are powerful tools to quantify the rate of convergence to equilibrium of Markov processes or to obtain concentration of measure inequalities. The aim of this talk is to explore a novel class of functional inequalities that has been recently obtained in connection with the Schrdinger problem and to show how they can applied to obtain quantitative rates of convergence to equilibrium for (mean field) stochastic control problems. Leveraging the large deviations interpretation of the Schrdinger problem, we will also present some ideas that allow to define an abstract notion of transport inequality associated with a large deviation principle and test this definition on some model examples.

Tuesday, October 29, 2019 04:30pm - 05:30pm

Heinzel Seminar Room / Office Bldg West (I21.EG.101)

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