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On the McKean-Vlasov limit for interacting diffusions with Markovian switching

This talk considers asymptotic properties of systems of weakly interacting particles with a common Markovian switching. It is shown that when the number of particles tends to infinity, certain measure-valued stochastic processes describing the time evolution of the systems converge to a stochastic nonlinear process which can be described as a solution to a stochastic McKean-Vlasov equation.