Universidade Estadual de Campinas

Workshop in Stochastic Analysis and Applications

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Entropy methods in large stochastic systems.

Abstract

We derive a new variational formula relating exponential moments of observables of Markov processes with the relative entropy of the law of the process with respect to arbitrary reference measures. As an application, we derive the scaling limit of fluctuations around its hydrodynamic limit of non-equilibrium interacting particle systems.