# Diffusion in randomly perturbed dissipative dynamics

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Dynamical systems having many coexisting attractors present interesting properties from both fundamental theoretical and modelling points of view. When such dynamics is under bounded random perturbations, the basins of attraction are no longer invariant and there is the possibility of transport among them. Here we introduce a basic theoretical setting which enables us to study this hopping process from the perspective of anomalous transport using the concept of a random dynamical system with holes. We apply it to a simple model by investigating the role of hyperbolicity for the transport among basins. We show numerically that our system exhibits non-Gaussian position distributions, power-law escape times, and subdiffusion. Our simulation results are reproduced consistently from stochastic Continuous Time Random Walk theory.