

Energy forms, function spaces and stochastic processes

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Dirichlet forms are energy forms associated with Markov processes, but they also give rise to scales of function spaces associated with continuous negative definite functions. The analysis of certain natural operators in these spaces is key to understand associated processes. Some interesting estimates are log-Sobolev type inequalities, and they are linked to entropies. In fact these entropy-type expressions are also of importance in the theory of large deviations. In this talk we will concentrate on the function space and the operator analysis aspects, but we will briefly indicate probabilistic implications.