Fleming, W. H.; **Soner, H. M.**

Asymptotic expansions for Markov processes with Lévy generators. (English) Zbl 0713.60085

Appl. Math. Optimization 19, No. 2, 203-223 (1989).

Summary: This paper considers a deterministic flow in n-dimensional space, perturbed by a Markov jump process with small variance. Asymptotic expansions are obtained for certain functionals of Feynman-Kac type, in powers of a small parameter representing a noise intensity. The methods are analytical rather than probabilistic.

MSC:

60J75 Jump processes (MSC2010)
60J35 Transition functions, generators and resolvents
60F99 Limit theorems in probability theory
60F10 Large deviations

Keywords:

deterministic flow perturbed by a Markov jump process; functionals of Feynman-Kac type

Full Text: DOI

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