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Construction SM process

5.1.3. Some properties of the process5.2. Multi-dimensional processes of diffusion type; 5.2.1. Differential equations of elliptic type; 5.2.2. Neighborhood of arbitrary form; 5.2.3. Neighborhood of spherical form; 5.2.4. Characteristic operator; Chapter 6. Time Change and Semi-Markov Processes; 6.1. Time change and trajectories; 6.2. Intrinsic time and traces; 6.3. Canonical time change; 6.4. Coordination of function and time change; 6.5. Random time changes; 6.6. Additive functionals; 6.7. Distribution of a time run along the trace; 6.8. Random curvilinear integrals

6.9. Characteristic operator and integral6.10. Stochastic integral; 6.10.1. Semi-martingale and martingale; 6.10.2. Stochastic integral; 6.10.3. Ito-Dynkin's formula; Chapter 7. Limit Theorems for Semi-Markov Processes; 7.1. Weak compactness and weak convergence; 7.2. Weak convergence of semi-Markov processes; Chapter 8. Representation of a Semi-Markov Process as a Transformed Markov Process; 8.1. Construction by operator; 8.2. Comparison of processes; 8.3. Construction by parameters of Levy formula; 8.4. Stationary distribution; Chapter 9. Semi-Markov Model of Chromatography

9.1. Chromatography9.2. Model of liquid column chromatography; 9.3. Some monotone Semi-Markov processes; 9.4. Transfer with diffusion; 9.5. Transfer with final absorption; Bibliography; Index

Sommario/riassunto

This title considers the special of random processes known as semi-Markov processes. These possess the Markov property with respect to any intrinsic Markov time such as the first exit time from an open set or a finite iteration of these times.The class of semi-Markov processes includes strong Markov processes, Levy and Smith stepped semi-Markov processes, and some other subclasses. Extensive coverage is devoted to non-Markovian semi-Markov processes with continuous trajectories and, in particular, to semi-Markov diffusion processes. Readers looking to enrich their knowledge on Markov proce