



Analysis of Ornstein-Uhlenbeck and Laguerre Stochastic Processes

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Mots-clés	Analyse, Probabilités et Statistique [3], exit [4], Ornstein-Uhlenbeck [5], Poisson [6], radial [7]
Résumé en anglais	<p>The objective of these lectures is to present Ornstein-Uhlenbeck and related stochastic processes to a wide mathematical audience with a modest preparation in stochastic analysis. The aim of the first part of the lectures (Chapter 1) is to discuss the Ornstein-Uhlenbeck and the Squared Radial Ornstein-Uhlenbeck stochastic diffusion processes, whose infinitesimal generators are, respectively, the Ornstein-Uhlenbeck operator and the Laguerre operator. In the second chapter of these lectures the Ornstein-Uhlenbeck processes governed by α-stable rotationally invariant processes are studied. This corresponds to replacing the Laplacian by the fractionnary Laplacian $(-)^{\alpha/2}$ in the Ornstein-Uhlenbeck generator $L = \Delta - x \cdot \nabla$. More general drift terms $b(x)$ are also considered at the end of Chapter 2.[2mm]</p>
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Liens

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