

1. Record Nr.	UNINA9910360853703321
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Titolo	Topics in Infinitely Divisible Distributions and Lévy Processes, Revised Edition // by Alfonso Rocha-Arteaga, Ken-iti Sato
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-22700-6
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (VIII, 135 p.)
Collana	SpringerBriefs in Probability and Mathematical Statistics, , 2365-4333
Disciplina	519.2
Soggetti	Probabilities Probability Theory and Stochastic Processes
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Classes $L_m$ and their Characterization -- Classes $L_m$ and Ornstein-Uhlenbeck Type Processes -- Classes $L_m$ and Selfsimilar Additive Processes -- Multivariate Subordination -- Inheritance of Selfdecomposability in Subordination.
Sommario/riassunto	This book deals with topics in the area of Lévy processes and infinitely divisible distributions such as Ornstein-Uhlenbeck type processes, selfsimilar additive processes and multivariate subordination. These topics are developed around a decreasing chain of classes of distributions $L_m$ , $m = 0, 1, \dots$ , from the class $L_0$ of selfdecomposable distributions to the class $L$ generated by stable distributions through convolution and convergence. The book is divided into five chapters. Chapter 1 studies basic properties of $L_m$ classes needed for the subsequent chapters. Chapter 2 introduces Ornstein-Uhlenbeck type processes generated by a Lévy process through stochastic integrals based on Lévy processes. Necessary and sufficient conditions are given for a generating Lévy process so that the OU type process has a limit distribution of $L_m$ class. Chapter 3 establishes the correspondence between selfsimilar additive processes and selfdecomposable distributions and makes a close inspection of the Lamperti transformation, which transforms selfsimilar additive processes and stationary type OU processes to each other. Chapter 4 studies multivariate subordination of a cone-parameter Lévy process by a

cone-valued Lévy process. Finally, Chapter 5 studies strictly stable and Lm properties inherited by the subordinated process in multivariate subordination. In this revised edition, new material is included on advances in these topics. It is rewritten as self-contained as possible. Theorems, lemmas, propositions, examples and remarks were reorganized; some were deleted and others were newly added. The historical notes at the end of each chapter were enlarged. This book is addressed to graduate students and researchers in probability and mathematical statistics who are interested in learning more on Lévy processes and infinitely divisible distributions. .

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