

1. Record Nr.	UNINA9910746099003321
Autore	Leipus Remigijus
Titolo	Closure Properties for Heavy-Tailed and Related Distributions : An Overview // by Remigijus Leipus, Jonas Šiaulys, Dimitrios Konstantinides
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2023
ISBN	3-031-34553-3
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (99 pages)
Collana	SpringerBriefs in Statistics, , 2191-5458
Altri autori (Persone)	SiaulysJonas KonstantinidesDimitrios
Disciplina	519.24
Soggetti	Probabilities Distribution (Probability theory) Stochastic models Actuarial science Applied Probability Distribution Theory Probability Theory Stochastic Modelling in Statistics Actuarial Mathematics Distribució (Teoria de la probabilitat) Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Preface -- Contents -- Acronyms -- 1 Introduction -- 1.1 An Overview of the Book -- 1.2 Notations and Definitions -- 2 Heavy-Tailed and Related Classes of Distributions -- 2.1 Heavy-Tailed Distributions -- 2.2 Regularly Varying Distributions -- 2.3 Consistently Varying Distributions -- 2.4 Dominatedly Varying Distributions -- 2.5 Long-Tailed Distributions -- 2.6 Exponential-Like-Tailed Distributions -- 2.7 Generalized Long-Tailed Distributions -- 2.8 Subexponential Distributions -- 2.9 Strong Subexponential Distributions -- 2.10 Convolution Equivalent Distributions -- 2.11 Generalized Subexponential Distributions -- 2.12 Bibliographical Notes -- 3

Closure Properties Under Tail-Equivalence, Convolution, Finite Mixing, Maximum, and Minimum -- 3.1 Ruin Probability in the Cramér-Lundberg Risk Model in the Case of Heavy-Tailed Claims -- 3.2 Convolution Closure and Max-Sum Equivalence -- 3.3 Closure Properties for Heavy-Tailed Class of Distributions -- 3.4 Closure Properties for Regularly Varying Class of Distributions -- 3.5 Closure Properties for Consistently Varying Class of Distributions -- 3.6 Closure Properties for Dominatedly Varying Class of Distributions -- 3.7 Closure Properties for Long-Tailed Class of Distributions -- 3.8 Closure Properties for Exponential-Like-Tailed Class of Distributions -- 3.9 Closure Properties for Generalized Long-Tailed Class of Distributions -- 3.10 Closure Properties for Subexponential Class of Distributions -- 3.11 Closure Properties for Strong Subexponential Class of Distributions -- 3.12 Closure Properties for Convolution Equivalent Class of Distributions -- 3.13 Closure Properties for Generalized Subexponential Class of Distributions -- 3.14 Bibliographical Notes -- 4 Convolution-Root Closure -- 4.1 Distribution Classes Closed Under Convolution Roots. 4.2 Distribution Classes Not Closed Under Convolution Roots -- 4.3 Bibliographical Notes -- 5 Product-Convolution of Heavy-Tailed and Related Distributions -- 5.1 Product-Convolution -- 5.2 From Light Tails to Heavy Tails Through Product-Convolution -- 5.3 Product-Convolution Closure Properties for Heavy-Tailed Class of Distributions -- 5.4 Product-Convolution Closure Properties for Regularly Varying Class of Distributions -- 5.5 Product-Convolution Closure Properties for Consistently Varying Class of Distributions -- 5.6 Product-Convolution Closure Properties for Dominatedly Varying Class of Distributions -- 5.7 Product-Convolution Closure Properties for Exponential-Like-Tailed Distributions -- 5.8 Product-Convolution Closure Properties for Generalized Long-Tailed Class of Distributions -- 5.9 Product-Convolution Closure Properties for Convolution Equivalent Class of Distributions -- 5.10 Product-Convolution Closure Properties for Generalized Subexponential Class of Distributions -- 5.11 Some Extensions -- 5.12 Bibliographical Notes -- 6 Summary of Closure Properties -- References -- Index.

Sommario/riassunto

This book provides a compact and systematic overview of closure properties of heavy-tailed and related distributions, including closure under tail equivalence, convolution, finite mixing, maximum, minimum, convolution power and convolution roots, and product-convolution closure. It includes examples and counterexamples that give an insight into the theory and provides numerous references to technical details and proofs for a deeper study of the subject. The book will serve as a useful reference for graduate students, young researchers, and applied scientists.
